





## Original Correspondence.

## EXPLORATORY BORING OPERATIONS.

SIR,—Being desirous to undertake deep trial borings on an extensive mineral property in this country, I should wish to learn, through the medium of your valuable Journal, whether there is any person in England who conducts boring under the system introduced by Mr. Kind, and successfully practised by him in the Bois de Bologne, near Paris? It would be also desirable to ascertain whether there are any new systems of boring practised in England preferable to that of Kind, having regard to speedy, efficient, and economic operations; and what, under such several systems, ought to be the lowest scale of expense per fathom in boring ordinary ground for the ascertainment of strata? As the subject is one of public interest, probably some of your numerous correspondents in the several mining districts will be able to afford full information in answer to these enquiries.—London, Dec. 3.

INQUIRER.

## IMPROVEMENTS IN TREATING GOLD AND SILVER ORES.

SIR,—Last week's Journal contains a statement of an "invention" patented by Messrs. Copley and Wright, for improvements in the treatment of gold and silver ores. Perhaps some of your chemical readers can define the reputed "invention," or your legal ones report if patents are granted for what has been known for ages. I am much interested in the treatment and profits of gold ores, and, exclusive of well-earned tribute to genius, should hail with delight improvements in the methods of treating any of "the various classes of gold ores," which must be treated in bulk according to their respective chemical combinations, to local circumstances regulating their supply, and to the commercial value of their products.

Dec. 3.

AURIFER.

## ORE-DRESSING MACHINERY.

SIR,—In last week's Journal a letter appears, signed "One Present at the Experiments," in reference to my machine for dressing ore. The writer has my best thanks for his remarks and suggestions, but I think it will not be necessary to try the experiment he mentions, inasmuch as every man who understands anything of ore dressing will be able to judge for himself, from the remarks I am about to make, as to the effect of a downward course of water in a jigging-machine. There seems to be an impression (I do not mean to include the writer of the above letter as participating in the belief in the slightest degree) "that the backward rush of the water assists the descent of the heavier particles as much as the upward current assists the rise of the lighter." I refrain from remarks which I should be justified in making, but I will observe if any of the Jurors were actuated with this impression in giving their opinion relative to the merits of jigging-machines it is to be regretted. Let us presume we have a rather poor class lead ore to treat—say, containing from 5 to 10 per cent. of ore. With my machine I should place a layer of clean ore on the sieve or perforated plate, about 1 inch in depth; this ore should be large enough not to pass through the sieve (the size of the holes must be made according to the size of the stuff to be treated). The ore stuff is then put on about 2½ in. thick; this must be regulated according to its richness. The richer the stuff the less the quantity. If the ore stuff contains 5 per cent. of ore and upwards, we can in one operation bring it up to about 60 per cent. The effect produced by the machine may be thus explained. The coarse ore resting on the holes in the perforated plate may, in some measure, be compared to the action of the valves; at every stroke of the water they should be lifted sufficiently to allow the finer ore to descend; and as the water is almost constantly going upwards the refuse cannot but in a very slight degree descend with the ore. I am now speaking of a machine worked by feeding it with a shovel, and scraping off the waste in the usual way. The inconvenience in this instance, by allowing the water to rush back through the ore, would be the carrying down the fine refuse with the ore; and instead of having hutchwork (as it is termed), producing 60 per cent. of lead, it would be, perhaps, under 40 per cent.; but if the machine were worked by allowing it to feed itself, and discharge the waste by the action of the water only, this could not be effectually done by allowing the water to return to the hutch; moreover, the action, which may be said to be double, the light rising before the heavy, and the heavy falling before the light, after each stroke, would be considerably interfered with. I am totally at a loss to know how any German process can be considered similar to mine in effect if the water rushes up and down. With a common jigging-sieve anyone can satisfy himself as to the effect of a downward rush of water. If the impression is that the ore does not go through without it, let them introduce a sieve of work in a hutch, and instead of moving it up and down as usual, let the sieve descend 1 inch or so at a time, by sudden jerks, as far as they can reach, and it will be found that the ore will pass through, and much less waste than if moved up and down. I do not mean that this can be practised beyond an experiment with a hand sieve. In concluding my remarks, I will observe if there is any machine in existence (not copied from mine) that will work 30 tons of ore per day, and leave the waste as clean (worked with power equal to that of an ordinary boy of 15 years of age), I must be content, and thank the Jurors for awarding my machine an Honourable Mention only.

Porthlethen, Dec. 3.

JOHN HUNT.

## THE NEW LIGHT—ATMOSPHERIC GAS.

SIR,—My attention has been directed to an article in the Journal of Nov. 22, headed "A New Light—Atmospheric Gas," and as anything in this line alleged to be new is generally investigated by me, I venture to give you my opinion on this "Atmospheric Gas," and on the article by which the process is explained.

First, as to the light itself: there is nothing whatever new in carbureting ordinary air—all it means is this, that instead of using a wick to convey the liquid by capillary attraction to the point at which it may be burnt, air is made to pass through a highly volatile hydrocarbon, which, taking up the vapour, is propelled through pipes to the burner, where the vapour of the hydrocarbon alone is burnt. The air itself is simply a carrier of that which gives the light, and has nothing to do with it in any way whatever, excepting as a supporter of combustion, and in this mixed state forms a dangerously explosive compound, which is not so with coal gas, as it is inexpensive in the gas-holder and pipes until it is mixed in certain proportions with air. Mansfield was the first to carburet air, and about fifteen years ago the process made some little noise; more recently an American apparatus was introduced, by which the necessity of an air-holder was superseded—a fan being actuated by clock-work forced air through benzine or some such liquid, and the speed of the fan gave the quantity which could be delivered per hour for the supply of a given number of burners. Even within the last twelve months something of the same kind of apparatus has been in action in Moscow, but it has not made any progress. The fact is, it means simply a consumption of so much of the liquid, which will not differ very materially in quantity from the ordinary way of burning; and as your article is silent on this head, the inference is that there is little or no difference between burning it in the way described or by an ordinary Holliday naphtha-lamp, the former requiring a liquid of double the cost of the latter, and liable to condense in the tubes. All these processes are, however, retrogressive in a country where gas from coal or petroleum can be had.

Now, as to the article on the subject: the writer begins by saying that "innumerable endeavours have been made by inventors to construct a simple and compact apparatus, by which the manufacture of gas might become as ordinary a domestic duty as baking or brewing; but ingenious as have been the arrangements, and successful as they have been in the hands of servants of ordinary intelligence, the carelessness in some cases, and, perhaps, more frequently the generally repulsive idea of having a gas-work on one's premises, has prevented gas lighting becoming anything like universal." True, private gas making has not become universal, for the simple reason that it does not answer the purpose of any person to make his own gas, when he can be supplied at a moderate price from public gas-works, and, if it did, there is the difficulty of making him think so, and of inducing him to go to the expense of a private gaswork, coupled, perhaps, with the difficulty of finding a place in which to put the apparatus.

I claim, however, for myself the credit of being in a position to supply a gas-apparatus which shall supply ten lights for five hours per night, each being equal to six candles, at a total cost of 1s. for the night, and to a consumption of 50 or 60 candles. The apparatus has only three portions, each being perfectly portable and complete in itself, requiring no brick-work whatever, and occupying not more than 8 feet square if all placed together, although the gas-holder, which occupies the greater portion, may be placed in any corner and at any distance away from the rest of the apparatus; and two hours after delivery at the residence of any purchaser, it will be ready for making gas. Any person, the merest boy or the most

stupid servant, can manage it, and the whole price is but 25s. Now, if this is not removing the difficulty of which you complain, I do not know what is. For ten years I have been labouring in this direction, and I invite you or any person to call and see the apparatus at my depot in Great Portland-street, in the beginning of December.

I may venture, with a pardonable egotism, to state that, being myself the manufacturer of all the gasworks, small and large, which I erect, I have during the past ten years made hundreds of experiments both in the apparatus for and in various modes of gas making, and my opinion is most decidedly in favour of coal or cannel in this country, where economy is the chief consideration; indeed, in almost every locality it is the cheapest material. The tunnel now being formed under the Alps is lighted with gas made from coal in the works which I have erected, as well as a great number of others in various parts of Italy, for both municipalities and the Italian Government, where the cost of the coal is very high. I am now preparing works for lighting the palace of His Highness the Viceroy of Egypt with 3000 lights, and coal will be the material used. In Spain, too, where in the interior the cost of coal is enormous, it is found to be the best and cheapest material.

Gas can be made from anything that will burn with a flame in open air. Wood and peat in some parts of Europe are used, but the difficulty of removing the carbonic acid gas is so great that, no doubt, coal will eventually supersede them. How far the natural oils of America and Canada will be made available remains to be seen. The Fitzmaurice Gasworks are making gas from petroleum very successfully in some parts of this country, and the process will be shown in operation early in December at my depot. Where purity of light and rapidity of production are considered of the first importance, leaving out of consideration the cost of the gas, then, probably, this gas, which requires no purification, will come into extended use as soon as the supply becomes regular. This natural oil is, no doubt, produced from bituminous matter, and the probability is that the heat generated for the distillation of the bitumen is owing to the decomposition of pyrites, and has only been sufficient to throw off vapour, and not a permanent gas, which having condensed into a liquid has permeated through various strata until it has finally settled in an impermeable basin, and thus the deposit has been stored from age to age until its recent discovery. What has become of the bitumen from the anthracite of this country? Was the heat so great as to generate gas, or is there a deposit of oil still to be discovered. One hypothesis is as likely as the other. Certain it is that the only difference between making gas from coal or cannel and from petroleum is that in the one case you act directly on the coal, and at such a heat as that you get impurities along with the gas, to be removed by materials which have an affinity for them, while in the other, by making gas from oil, you treat a secondary product of coal, incapable of forming impurities when converted into gas, but with the disadvantage, in the point of economy, that there is no coke left to reduce the cost of the gas.—St. Neots, Hunts.

GEORGE BOWER.

## COLLIERY EXPLOSIONS.

SIR,—From last week's Journal I learn that the verdict of the inquest connected with the recent explosion at the Walker Colliery, near Newcastle-on-Tyne, is "explosion purely accidental." I have carefully studied the report of this inquest, and am puzzled to understand how such a definite verdict should have been recorded. Experienced men, it is stated, "very minutely" examined the workings after the disaster, and were not able to discover either where or how the explosion originated. The ventilation was declared to be ample. Nevertheless, it is certain that fire-damp had accumulated in one part of the pit in sufficient volume to produce an explosive mixture, whether by slow leakage from the coal or, as sometimes happens, by sudden irruption. It is also clear that in this case there must have been a naked light of some kind with which the gas came in contact. One viewer expresses his opinion that ignition may have been due to a defective or injured safety-lamp. I need hardly observe that the gas called fire-damp, or marsh gas, is not spontaneously inflammable, as a chemist asserted a short time ago in a letter on the Will-o'-the-Wisp; for, if it were, safety-lamps would be useless. It was given in evidence that from the appearances in the locality where the men had been blasting the explosion did not occur there; and in support of this conclusion was adduced "the fact of the lamps of the deputies who were working there having been found with their tops on and all secure." Now, where blasting is carried on there must be fuses, and these fuses might be lighted; but it is to be presumed that safety-lamps are not allowed to be opened for this purpose. The lucifer-match is a very convenient and obvious source of light in such cases, and, unless it could be shown that there were no matches underground, the evidence of the satisfactory condition of the safety-lamps found near the site of the blasting operations affords no indication whatever that the explosion did not take place in that part of the pit. The inquest has not thrown any light on the cause of the accident, and a more reasonable verdict would have been "death by explosion, of which the cause is unknown." The verdict, as it stands, exonerates all persons from blame, dead or alive. But a naked light there must have been in this pit, in which the safety-lamp was considered essential to the protection of life. What was that light? A defective safety-lamp would imply culpable negligence, and so would the use of lucifer matches in a pit where naked lights were strictly forbidden. The explosion may have been purely accidental, but, assuredly, no evidence was advanced at the inquest to prove that it was.

## THE WALKER EXPLOSION—DANGER INDICATORS.

SIR,—The proceedings before the coroner relative to the Walker explosion were scarcely satisfactory. The calamity is allowed to pass as a mere accident, and that, probably, in pure hopelessness of arriving at the real cause, which to every practical man must appear sheer neglect. Neglect of supervision, neglect of ventilation, neglect of lamps, neglect of rules as to smoking, matches, blasting, or otherwise; for no one who has the least knowledge of such matters will ever believe that the fire-damp exploded spontaneously. There is also this feeling in the mining districts, that however usually careful men may be, yet from time to time they will presume too far, and leave the requisite examination aside, just at the moment it is most indispensable. Instruments will also get out of order; but those I have contrived for indicating danger are so simple that this probability is reduced to a mere possibility. With your permission, I shall describe some of the forms embraced in my patent, and suitable for those occasions. To explain the principle of these apparatus, I shall premise that they act by the relative specific gravity of air, compared with that of the dangerous gases and water which collect in mines, as the most frequent source of accident. Imagine a common ball-valve in a water-butt: it rises and falls with the level of the water, because the specific gravity of the volume it displaces is less than that of the water. So, for water or choke-damp which is also heavier than a perfect or partial vacuum, or a hollow float filled with air, the specific gravity of such a float would cause it to rise where choke-damp or water is accumulating. In experiment, I discovered a drawback in the weight of the copper of my float, and, naturally, I turned to aluminium; but here, again, there was a difficulty as to the joint, which I have vanquished. This same principle reversed gives the indication of fire-damp, which is of less specific gravity than air. The ball will descend when surrounded by a medium of hydrogen or any of its compounds, including fire-damp. This is easily understood by anyone possessing even rudimentary knowledge of natural philosophy.

The indicator for fire-damp is thus constructed:—In a box the float is suspended to a balance at one end, and which at the fulcrum is connected with a magneto-electric or galvano-electric conductor; while the other arm of the balance, by the depression of the float under the action of the gas, will rise and come into contact with a metallic arm in connection with the opposite pole of the conductor. When the gas enters the box or casing (which is merely a protection to the internal mechanism) the ball sinks, and completes the circuit, which acts on any of the usual forms of alarm and signals which may be made to indicate the locality of the danger. Another form, for the same purpose, is contrived on the principle of the Davy lamp. Two electrodes, within a galvanic circuit, are placed in a cylinder of wire-gauze, with closed ends; above this is suspended a flap, movable disc, or piston, which in rising is caught by a spring arm, pawl, or ratchet—the former connected with the positive electrode, and the latter with the negative pole of a conductor, of which the circuit passes through the alarm and signal instrument above ground, or elsewhere. The electro-galvanic current is passed periodically or intermittently (which may be effected by an automatic arrangement), and if there be any fire-damp where the indicator is placed, the spark or incandescence at the electrodes will cause an expansion of the gas—like what occurs in the gas-engine. This dilatation acts on the flap, disc, or piston, which is thrown into contact with the spring arm, pawl, or ratchet, and so brings into action the alarm and corresponding signals.

The instruments for choke-damp and that for water are of the nature

of the first of the foregoing, with this difference, that the ball rises in the gas or water, and depresses instead of tilting up the opposite arm of the balance, to complete the electro-magnetic or electro-galvanic current, which gives the alarm and other signals how and where required.

There are other modes of effecting the same purpose specified under my patent, but in these I have most confidence. Proper contrivances applicable to steam and other dangerous vapours are provided, as also some available for any objects where the specific gravity of the atmosphere is capable of being made the standard of comparison. There is what has been long required in steamers, and establishments where boilers are used—the means of conveying to a distance a repetition of the action of steam and water indicators of boilers, so as to simplify control. By this means a captain, or the head of a factory with steam-power, can tell at any moment whether there is neglect in the stoke-holes.

All this is quite simple, you will say; why has it not been thought of and adopted before? Because there is gross neglect or culpability of the part of our legislators and mine owners, some of the latter having some of the best reputation in regard to accounting for the patent rights the use underground. Simple as it appears, I think it affords the means of prevention under circumstances similar to the awful carnage (I can call nothing else) which has been just whitewashed over by the inquest, without a word of comment; thus showing the jury's sad conviction of the formidable nature of the evil, so far as their appreciation was concerned. I trust I shall be enabled to show that my plans furnish the desired remedy, and I shall rely on the discriminating support of your valuable Journal to urge its adoption; for I am satisfied that if the same resolution were applied to this subject as there has been to the smoke nuisance, hundreds of valuable lives would have been saved.

Paris, Dec. 1.

R. MOORE.

## "LONG WALL" v. "PILLAR AND STALL."

SIR,—It is not astonishing that Mr. Naysmith should consider the long wall system a very unscientific method of getting coal, providing that the long wall system which he has described as such. I should like to know whether it is from Mr. Naysmith's own experience of long wall working that he is enabled to speak of the danger attending the system, and whether the great waste of timber that is spoken of occurred under his own management. An opinion in these matters means nothing—Mr. Naysmith knows from his own personal observation that the long wall system has proved a failure when skillfully and fairly tested, or otherwise. If so, Mr. Naysmith is justified in speaking of the long wall system as a failure, but upon no other grounds. Perhaps he will have the kindness to say if he has tried the system, and under what circumstances, stating the angle of inclination of the mine, nature of the floor upon which the mine reposes, also the nature of the roof or strata overlying the coal, thickness of the seam, and depth from the surface, and I will do my best to assist him in arriving at a conclusion why he should have failed in introducing the long wall system into South Wales. I am not certain that I quite understand the diagrams of Mr. Naysmith in last week's Journal, but if I do my surprise is lessened that Mr. Shepherd should have taken up the subject in the manner he did, providing he claims no greater interest in the matter than that of being a public benefactor. I am speaking from a mature consideration, when I say that I have never yet seen a mine that I could recommend to be worked according to Mr. Naysmith's diagrams; perhaps the mines of South Wales differ much from those that have been accustomed to. Mr. Naysmith's diagrams would have been clearer to have been understood providing he had given us a scale and the pits on, and supplied us with the information requisite to judge whether any great difference exists between the mines of this coal field and that of many others.

Hyde and Naughton Collieries, Dec. 2.

JOS. GOODWIN.

## OUR COAL FIELDS.

THE "LONG WALL" v. "THE STALL AND PILLAR" SYSTEMS OF WORKING A COLLIERY.

SIR,—Did you ever reside in Germany, and have the honour of the acquaintance of a German professor (of no matter what)? If so, you will invariably find these gentlemen are what is termed "book learned." The would not go two yards out of their way to get a little practical experience, but adhere tenaciously to their books, and their own crude theories, amount of argument, or fact, will shake their preconceived notions. I thought Germany alone produced this class of the *generis humani*, but reading two papers in last week's Journal on the working of our coal fields I find that England likewise abounds with them also; on turning to the map of England, it certainly is marked with numerous lines described railways, which hurl some of our restless mortals over their iron nerves at rate of 40 or 50 miles per hour, while the centre of the map is marked with the names of Shropshire, Staffordshire, and Warwickshire, and county containing extensive coal fields, with other minerals, all worked the long wall system. The roofs over these minerals are as variable any that can be found in any other coal field in England; the system has been in operation for ages, and thousands of tons of coal and iron are raised daily, and the long wall would be changed for any other system of working a coal seam more economical, but until this can be shown a system will still be continued. Now, with this rapid system of travelling, would naturally suppose that colliery owners and colliery engineers would avail themselves of this agency to see what is going on elsewhere, and alone trust to their own opinions and prejudices on things they do not understand, or confine their observations to the columns of the Journal. My own part, I do not regret the discussion my late papers on this subject have called forth, and I do trust this discussion will lead to a better system of working our valuable coal fields. Mr. Goodwin states, in two columns from this, our coal fields will be practically exhausted, so far as the present seams are concerned, but he thinks discoveries will come to light to make up for the loss of our coal. Be it so, but that we must leave the future, we have nothing to do with that at present. The question, however, have raised is, "Are we working our collieries at present with due economy?" I have shown we are not, and I still maintain that collieries worked on the stall and pillar system is an outrage on the land of economy.

Your last week's Journal contains two papers on colliery operations, the first of these papers the author gives us some elaborate sketches of coal wasting, coal cutting, coal dirty-faced monster. On one side of the sketches is the seam of coal in its virgin state, on the other side the workings. Now, from these sketches inexperienced persons would imagine that every atom of the seam is worked out, so clean and beautiful does it appear on paper. But why this reserve; why not show the black mass where the coal is left behind and lost for ever? All this is admitted, even by the author himself in his letter in the Journal of Sept. 6. He says, "The 50 per cent. of coal Mr. Shepherd supposes to be entirely lost, I must inform him, taken away, but there are some collieries where you are obliged to leave these pillars to support the roof. Again, in addition to the loss by the pillars, he details a further loss, the cutting the coal—namely "To secure the roof," he states, "the pillars and other rubbish found in the coal is built up in the form of a wall by the side of the tramroad, and all the small coal dust, &c., thrown behind it." The percentage is not given. On referring back to the Journal, in reference to the heaps of coal dust on the surface, the author of the paper, in his letter in the Journal of Oct. 18, states—"It is well known that what little small coal comes to bank in the Aberdare colliery is almost useless, and it is thus left to accumulate about the tops of the pillars."

It is now admitted by our author that seams of coal worked on the stall and pillar system is subject to a loss, as follows:—

1. The loss of the coal left for the pillars.
2. The loss of coal cut to dust by the cutters, and left behind.
3. The loss of coal on the surface in the form of valueless dust.
4. The coal won from the Welsh seams, worked from the stall and pillar, will not bear carriage.

Let any person acquainted with a colliery working only look at the intricate network of headings this system requires, and he will see at a glance the cause of all this miserable, extravagant loss of mineral wealth. As to the system of ventilation, if the air has to traverse all the network of stalls and gate-roads there represented, the ventilation in some parts of the work must represent what a Yankee would call the "thin end of the thing whittled down;" or something like the state in which I found the poor "cutter" in his stifling stall.

The sketch No. 3 gives us an illustration of what he terms the long wall system, as understood by our author. Well, this may be a long wall system, but it is not the long wall as understood elsewhere, or as applied to it. As I understand it, the shaded parts on each side of the gate-roads represent the coal left to support the roads, and ultimately either ground to dust by the superincumbent weight, or entirely lost.



appears to me as bad as the former, and equally extravagant, the expense of such a system of gate-roading must be something to be contemplated. As to the statement that the 4-feet and 6-feet seam of coal do not yield sufficient brass and other rubbish to build up the gob from which the coal has been extracted, and the supposed danger of timber he speaks of in a properly-conducted long wall colliery, no absurd to require a moment's notice. On the other hand, on the long wall system, seams of coal from 2 to 6 feet in thickness make the work imaginable; the loss of timber is as a shadow compared with the timber broken and destroyed, as shown in the sketches referred to. In the long wall system of ventilation, brattices, brattice-cloths, and like monstrosities, are unknown, and every man works in a fine, pure current of ever-changing fresh air; and as to the dangers referred to in the long wall work, they only exist in an imaginative mind. This is confirmed by the annual reports published by the Government Inspectors: these supposed dangers are mere idle supposition, I will pass over them as things non-existent.

In the second paper, the author's mind seems to vibrate between the two systems; he admires the value of the long wall system, but clings to the stall and pillar system. He gives us an instance of one of the difficulties of working one of the seams in his own locality, as follows:—"The Peacock Mine seam is about 2 ft. 6 in. in thickness, and is one of the most fiery seams in the South Lancashire coal field. The mine is known in the neighbourhood near Oldham as the Bent Mine; it is a floor composed of alternate layers of shale and thin seams of coal. The roof is composed of a tender shale for about 18 in. in thickness, above which a strong dark-coloured metal is found; or, in other words, above this 18 in. of tender shale, I apprehend, a good roof is found. I imagine the smile which will extend over the face of some old long wall collier while reading this. If I went down a shaft with a Shropshire collier, I should simply say, "Well, how do you propose to get this roof?" The reply would be—"I shall hole in the top in the shale, Sir, and burst up the coal after it is holed." If Mr. Goodwin would do this, he would find his supposed difficulty to vanish into thin air; this would give a wall 4 feet high, and pretty work. I may say I never saw a seam of coal which could not be worked on the long wall system with the common economy I have pointed out in my previous papers. The supposed difficulties of maintaining the gate-roads, either from the falling of the roof or the swelling up of the floor, are all that is mythical, as the latter may be avoided by raising the rails about a foot above the natural floor, and excluding the action of the air upon it; this effectually prevents the swelling referred to. Again, as to the order of the faults in the above collieries being different from that of other coal fields, this is erroneous; some of the seams are very faulty indeed. But when faults occur in the workings, the long wall men do not fly from their system for that of the stall and pillar, but make their arrangements according to contingencies.

If a long wall collier finds he has a soft tender shale of 18 in. in thickness, he will hole in it, and builds it up upon the gob; on the other hand, if he has a soft fire-clay, or other substance, 18 in. below the coal, he holes in the softest part of it, and builds it up behind him also; in such a case no harm from holing in the coal is experienced; in fact, this is one of the first engines in a new long wall colliery, which is the softest part to hole in, whether on the top or bottom of the seam. With reference to the small nodules of ironstone which lie between the coal and the floor, to the best of my recollection I never saw a seam without these nodules, and the holder usually keeps a blunt pick by him to strip down the earth containing these hard substances; even these supposed difficulties scarcely merit this kind of observation. Again, in a properly worked long wall seam, after a seam has been worked, on making a road or driftway through the gob roof is found intact, and presents the same even surface as it did before the coal was extracted, excepting just those parts where the wastes were formed, while if these sketches are to be relied on the roof in a stall and pillar seam is broken, and falls in in a most disordered manner. As the gob in the long wall work containing inflammable gas; on driving through it the gob is found only to contain a large quantity of carbonic acid gas; this I attribute to the process of fermentation, if I may so term which is produced by the changes in the strata. So much, then, for the danger of inflammable gas oozing out into the gate-roads.

A few weeks ago your correspondent, "V.," gave us a ludicrously true description of his long wall experiments with 60 yards of face. He tried one way and it failed; he then tried it in another direction with the same result. He had no dirt to build up his gob with, although the roof was falling about his ears, and he gave it up. The author of the first paper referred to tells us the same dismal story. These gentlemen strongly remind me of the story of the celebrated experiments of that great philosopher, Galileo, who, on hearing the earth was round like a ball, anxious to satisfy his own mind on that point, went 50 miles to the east, and then 50 miles to the west, and, finding no symptoms of globosity, pronounced the earth to be flat, which all the faithful of his creed now rigidly believe to be the case. The one experiment is as absurd as the other.

I cannot trespass further on your space this week, but as these gentlemen have now given us their views I will prepare another paper, and give a sketch of a real long wall colliery, with all its details and costs of every operation. We have now heard all that can be said for the stall and pillar system, and nothing yet has been added in favour of the coal-mining monster. If all our coal fields are to be exhausted in two centuries, I feel thankful I live in A.D. 1862.

G. SHEPHERD, C. & M.E.

Thyemorton-street, Dec. 3.

#### FALSE TRADE MARKS.

It appears to me that it is not so well known as it ought to be by an Act of Parliament, passed last session, under the title of the Trade Marks Act, 1862, 25 and 26 Vict., cap. 88, it is provided that, in addition to the many prohibitions of false trade marks, denoted by false weights, measures, or quantities, that any person putting on any article, or thing uttered, sold, or exposed for sale, "any word, name, figure, signature, or mark, for the purpose of falsely indicating such article, or the mode of manufacturing or producing the same, or ornamentation, shape, or configuration thereof, to be the subject of any existing patent, privilege, or copyright, shall for every such offence pay to Her Majesty a sum of money equal to the value of the article or article so sold, or uttered, or exposed for sale, and a further sum not exceeding 5l. and not less than 10s." This enactment will, it is presumed, put an end to the improper practice hitherto pursued by many persons of making articles as patent for which no patent exists. And it seems important to inventors and manufacturers to learn that this is now the law, hence I have sought to thus occupy your valuable space.

F. W. CAMPIN.

#### CONDENSED PEAT AS FUEL.

The announcement, in last week's Journal, of the formation of a company for the purpose of manufacturing condensed peat for use as fuel, otherwise, naturally induces me to examine the prospectus of the proposed company. The statements which I find in that prospectus appear to indicate that the projectors of this undertaking are labouring under a most remarkable delusion. The statement that peat can, by any conceivable mode of treatment, be so prepared as to have more than twice the value of coal as fuel, or do more than twice the duty of coal, is so utterly inconsistent with what is well known as to the fuel value of peat, that it is almost too obvious to anyone. It is, in this respect, on a par with the statement that lead can be converted into gold.

As regards the quality of the condensed peat, I do not at all doubt that it is capable of being used for smelting iron, for making gas, or for generating steam; but what I do doubt is, that this condensed peat can be manufactured at a cost that would admit of its being used for these purposes, as a substitute for coal. Everything that is known as to peat supports such a doubt, and nothing has been brought forward to remove or lessen such a doubt; and it appears to me a very remarkable fact that the prospectus of the Condensed Peat Company nothing at all is said of the way in which the prepared peat is to be dried, of the time the drying of 100 tons of prepared peat would occupy, or the cost of that drying. However ingenious and effective Mr. Buckland's method of preparing peat may be, as regards the ultimate effect produced on the quality of the peat so prepared, it must not be forgotten that his mode of preparation does nothing towards the drying of the peat. This, which is the signal difficulty to be overcome in utilising peat, remains to be done after the preparation of the peat by his method, just as it has to be done in any other

case; and, much as I should wish to see peat rendered available for the many useful purposes it is applicable to, I cannot but regard as a grave defect of this proposed undertaking the entire absence of any reference to this very important circumstance.

In the paper which I read on this subject last week, at the Society of Arts, and other details of the subject are fully treated of; but as that paper was published at length in the Society's Journal, I need not here do more than refer to it.—Dec. 3.

B. H. PAUL.

#### SUBSTITUTE FOR TIN AND TERNE-PLATES.

SIR,—You will, perhaps, allow me space in your next issue to reply to a communication "from a Correspondent," published in last week's Journal, and headed "Dangerous Substitute for Tin and Terne-plates," and concluding—"This injurious metal may be so applied as to endanger human life." Your "Correspondent" would have done well to have given the subject a little consideration before making so strong an assertion, and heedlessly condemning a "material" likely to become of important and extensive use. Is your "Correspondent" ignorant of the fact, and must he be told, that the metals he thus hastily condemns, enter largely into the composition of many articles and utensils of daily domestic use, such as Prince's metal, Queen's metal, Britannia metal, pewter, &c. The metal most largely used in the manufacture of tea and coffee-pots is composed of 4 lb. tin, 1 lb. bismuth, 1 lb. antimony, and 1 lb. lead. Did anyone, even your "Correspondent," discover the dangerous effects of the use of those utensils, or that the use of them endangered life?

I strongly suspect that a more sinister motive than care for the public health has prompted your "Correspondent" to condemn what he evidently knows little about. To allay his fears, however, I may add that there is not much probability of these patented plates being used for other purposes than as a substitute for terne-plates, for which use the firm of W. Hallam and Co., of Swansea (with whom I have been for many years connected) the sole manufacturers, have extensive orders.

HENRY J. MADGE.

Upper Forest Tin Works, near Swansea, Dec. 4.

#### RELATIVE VALUE OF DIVIDEND-PAYING MINES.

SIR,—For the information of your readers, the following is a table of the relative value and number of years' purchase of all the copper mines in Cornwall or Devon that are paying dividends. The calculation is, of course, based on the last dividend paid and the last price per share in the market, in the Journal of Nov. 29. I see none selling so low as five years' purchase, although most of them have been working and paying dividends upwards of 21 years:—

Name of Mine.	Market value.	Yearly div.	Years' purchase.
Devon Consols .....	£500,000	£20,144	8
East Caradon .....	215,040	24,476	8 1/2
South Caradon .....	204,800	15,240	14
West Caradon .....	33,814	8,073	11
Marke Valley .....	90,000	10,800	8 1/2
West Seton .....	116,000	12,000	9 1/2
Seton .....	67,132	4,752	12
Bedford United .....	16,000	2,400	7
North Treakeby .....	23,744	2,670	9
South Wheel Frances .....	47,120	5,952	8
Wheal Bassett .....	46,180	6,114	7 1/2
East Bassett .....	27,136	3,072	9
Wheal Clifford .....	60,700	5,700	7 1/2
East Pool .....	51,840	1,920	24

#### THE MARKET AND REAL VALUE OF MINING PROPERTY.

NEW SETON V. WHEAL SETON.

SIR,—I may, perhaps, not be considered intrusive if I solicit space for a few remarks on the comparative merits of New Seton Mine and Wheal Seton, especially as there just now seems a desire for enquiry into the real state of mines, as regards their present productiveness and probabilities of a continued yield. This enquiry most assuredly should be made by persons who have money to invest, and would feel willing to embark in mining if reliance could be placed upon statements which are put forward, instead of our having those which lead to wild fluctuations in the Mining Share Market, and present false inducements to condescending capitalists, regulated regardless of improvements or falling off in mineral returns, or the conditions upon which returns may be expected from new undertakings. When we take, for example, the high price asked for the shares in New Seton (145l. per share), and bear in mind that this mine is making regular monthly calls of about 30s. per share, and view it in comparison with Wheal Seton, selling at 160l. per share, the division being the same, paying regular dividends of 2l. per share, with every prospect of an increase, surely we may look on this as one of the enigmas in mining valuation of which the mysteries of share-jobbing can only give a solution. I would ask fairly and openly what are the prospects shareholders in New Seton have of its ever becoming a paying property? Can they put forward anything more encouraging than that their workings are on one of Wheal Seton lodes? It is well known that the ore in Wheal Seton and West Seton makes in what they term an ironstone (more correctly greenstone), and wherever the lode leaves this rock it immediately becomes poor. Now, this greenstone does not go near the lode in New Seton, and, indeed, the lode is embedded in such a stratified rock that I have never yet known to produce copper ore in any quantity. Where, also, in this mine can they point out any signs of the great guide which in new mines is the desideratum—the gossan? I may as well tell that an apple tree can produce fruit without the beautiful indications of its blossom, as any person to say that a course of copper ore is to be met with unless in connection with gossan, its sure precursor. Many persons have remarked that Wheal Seton never made a gossan back; but to this I reply that the great outcrop in connection with Wheal Seton (if I may so term it) is at Wheal Seton, where there is as fine a gossan as any mine would ever wish to sink under. Appeal to the judgment of any experienced mine agent who understands thoroughly the mines I mention—such an intelligent man as Capt. J. Vivian, of North Roskar, for instance, who has studied not only practical mining, but the scientific associations and geological phenomena—whether, supposing Wheal Seton was never in existence, if this piece of stratified ironstone ground, having no great mineral bed (eluvium) were shown to him, he would jeopardise his reputation by recommending it as an outlay upon its development? Experience emboldens me to assert that there is not one-half the mystery connected with mining as would appear to deter private capitalists from its study. It is astonishing how little this matter is studied: "bulls" and "bears" raise or depreciate mining property with impunity, and young men, quite youths, imperitantly quote day by day what they consider the value of shares, such quotations, of course, being looked on by the uninitiated as a guide for purchase or disposal. Let us have a trace to such an unkindly war upon the confidence and capital of the public, for whose wealth there is an inexhaustible field of operations in our own home dominions; and to those of my own country, upon whose responsibility rests the selection of the fields of mineral labour, I would counsel that honesty of purpose which will save much money from being squandered in ill-directed channels, loss of character to themselves, disaster to the willing adventurer, and poverty-clouded home for his family; and, beyond this, a dispute which will throw out of employment thousands of our hard-working miners.

St. Day, Dec. 3.

CHARLES BAWDEN.

#### EAST KONGSBERG NATIVE SILVER MINING COMPANY.

SIR,—Several of the shareholders of this company have asked me for my opinion on the report of the general meeting in your valuable Journal of Nov. 29. I find it is there stated that Mr. Bigg, a director and shareholder, in remarking on his late visit to the mines of the company in August last, said he did not believe in the statement as published in the pamphlet given to the shareholders on the commencement of the company, that 44,200l. had been the average annual profit from the King's Mines, in Norway, for 25 years previous to that date. He put forward a paragraph in Mr. Murray's "Hand-Book of Travels in Denmark, Norway, and Sweden," page 149, to show that only £50,000, or 11,041l. 13s. 4d., had been the profit from the mines between the years 1857 and 1860. "Revenue Account of Norway." I beg to state, in the interest of fair dealing, that had Mr. Bigg referred to the report of the Government mining director's report on the King's Silver Mines for the years 1856, 57, and 58, page 89, he would have found the following statements of profits at those mines, and the distribution of the same:—

	Total profits.	Delivered to State cashier.	Added to mine fund.
1856 .....	\$213,587-82 .....	\$109,000-00 .....	\$113,587-82 .....
1857 .....	143,301-36 .....	75,000-00 .....	68,301-36 .....
1858 .....	289,909-110 1/2 .....	80,000-00 .....	239,909-110 1/2 .....

Total .....

Three years average 215,599-76 .....

English money .....

The average annual net profit stated in the pamphlet was 44,200l., consequently it was under the mark—at any rate, during the three years here given. The £50,000, or 11,041l. 13s. 4d., stated in Mr. Murray's "Hand-Book," is most likely the sum the Government took from the profits in 1858, or some part may have gone to the private purse of the King; as these mines were formerly a royal prerogative in the time of the Danes, and the King of Norway may have still a share of the profits.

Again, I wish to state that there must be some error in Mr. Bigg's statement, that after the mine-stuff costs only 10l. per cubic fathom for extraction from the mine, that an average of 35l. more has to be spent to extract the silver therefrom, by spalling, carriage to mill (not a mile off), and then stamping and refining of the same. Of the rough stuff extracted, 70 per cent. is thrown on the waste heap at the mine, so that there would remain only from 2 to 3 tons to be stamped, dressed, and refined, and 75 per cent. is washed away from the stamped stuff, consequently there is little left to carry to the smelting-house. At the King's mines I find, from the reports thereon, that the cost of the mine to add; and of three mines in that district I find the costs of stamping and dressing are 8s. per ton. The costs will stand thus:—Mining costs 10l. per Mr. Bigg; then, 2 1/2 tons from it, dressing and stamping, &c., will be 1l. more, making 11l. To which must be added, say, 3l. more for salaries, which would bring the costs to 14l. per cubic fathom. But I am confident it can be done for much less when the mines are more opened out, and more ore is raised; to the present time much has been spent in driving two adits and clearing out old mines.

I find from Mr. Eordant's report on the mines, given to the mining direction of Norway, that up to Dec., 1861, this company had done the following work on the mines:—

Sinking .....

Driving .....

The sinking and driving produced ore; the cross-cuts and adits are, in fact, making entrances into the mines to expedite and cheapen the extract of mine stuff and water.

At the price of 14l. per cubic fathom, it would require only 80 9-10ths oz. silver as to bulk of stuff—or, say, 5/8 oz. per cubic foot of stuff sent to the mill to pay costs. At the mines of Arnen and Kongens, in the King's reserved district, I find the common ore (main) has 2 1/2 oz. per cubic foot as sent to the mill, but when all the native silver taken out by hand-picking and rich stuff is stamped, it contains as much as from 5 to 6 ozs. per cubic foot; and I do not understand why one should not expect that some mines within the territory of this company should not give something like those mines. The reserve fund of the King's mines is to be £1,000,000; in 1858 it had reached to £683,054.—31 1/2.—Page 89 of the Government report.

Having been unavoidably absent at the beginning of the last general meeting of the company, on Nov. 26, I had not an opportunity to state these facts, and, indeed, was unaware that they would be brought forward; nor could I, as I expected Mr. Bigg had copies of the Direction of Mines' reports. In that for 1858 will be found a statement of the native silver from ten mines in the King's reserved district, as far as the documents left by the Danes admitted of solution. By sending through a friend in Christiania, I have obtained these documents.—Kensington, Dec. 4.

JOHN H. CLEMENT.

#### MINING IN IRELAND.

SIR,—Your correspondent, "A Dublin Shareholder in Mines," does this subject no more than justice, especially in advocating the claims of the Roaring Water Mine, a piece of ground I know well. If a "Dublin Shareholder" will take the trouble to visit or enquire into the recent discoveries at the Coolarra and Bond Mines, in the county of Monaghan, he will witness the truth of his remarks that Ireland possesses abundant resources of mineral, far preferable for adventure to foreign schemes, in out-of-the-way and almost inaccessible situations. He will also find that gentlemen of the sister island are becoming alive to the value of those treasures; he, by a visit, will be further gratified by the interesting fact that the highest of Irish mining (the belief that the ore only exists in surface branches) is dispelled at the Tassan Mine, adjoining the Coolarra, where, by the indomitable perseverance of Captain Skimming, the mine has been sunk to the 70 fathom level, and found at that depth to be more productive than at any previous point. These facts, the sales of ores, and the spirit excited thereby, tend more to foster and encourage mining in Ireland than all the words of a thousand theorists, or the voices of a thousand of Ireland's detractors. It is lamentable to think that the bulk of these worthless exist in Ireland itself, especially in her capital. "Can any good come out of Nazareth?" is their motto. It is a fault prevalent amongst mankind, as it is amongst children, to believe in the *summum bonum* being obtainable at a distance rather than at their own doors. "Distance lends enchantment" is, unfortunately, too true a maxim.

Were Dublin mine adventurers to encourage Irish mining, instead of trusting their money to mere jobbing mine brokers, who frequently pay that city a visit to induce capitalists to adventure in Cornish cost-book, or foreign wild chimerical schemes, we should hear less complaints of their having been swindled, and never again see such articles as appeared in the *Irish Times* on Sept. 24, in which the scribe unwittingly did the cause of mining more injury than he will ever be able to repair in his generation. On being remonstrated with respecting it, he declared that it did not refer to Irish mining, and inserted a note to that effect; still the mischief was done; the leprous distemper had been infused. Irish as well as other honest mining have not yet recovered the shock in Dublin; but let a few such adventures as Tassan, Coolarra, and Kouring Water be introduced, and the motto will be "Erin go Bragh!"

GEORGE HENWOOD.

#### EAST CARADON MINE.

SIR,—Much has been said, but little understood, concerning this mine. The Caradon Hill has produced some of the finest and most lasting mines in Cornwall or Devon—South Caradon, West Caradon, Phoenix, Craddock Moor, and Marke Valley, all of which mines have proved productive in depth, varying from 100 to 200 fathoms, and upwards. Most of these mines have been working more than 20 years, and have sampled vast quantities of ore, and paid handsome dividends, and the prospects of each are as good as ever, and bid fair to last for generations to come, the market value still standing very high. When West Seton, South Caradon, and the Devon Consols cut rich, I well remember the cry that was set afoot—they were hungry, and not likely to last, on account of eluvium, cross-course, and other matters which the inexperienced pretended to know. They have outlived all aspersions and evil report, and they now exist as monuments and wonders of the age, the market value of West Seton being 120,000l., South Caradon, 200,000l., and Devon Consols, 500,000l., and each mine looking better than ever. East Caradon adjoins South Caradon, and is situated in granite, in which strata the mines are productive. East Caradon has the same lodes running through the set as South Caradon, in addition to other lodes not passing through South Caradon set. The set has been only partially costened, and 13 promising lodes discovered, besides other lodes not yet laid open in the backs, but are known to exist; three only have been wrought on, and proved productive; and is it not probable from its position that some, if not all, of the remaining ten lodes will open up valuable? Is it not also reasonable to expect, judging from analogy, that East Caradon will prove rich in depth as well as all its neighbours? In the granite hill of Caradon there has been no instance of a failure in depth where productive lodes have been cut. The mine speaks for itself. In many places the lode has been worth 90l. per fathom, and the last monthly sampling was 480 tons of rich ore, and fetched 3472l. 13s. 6d., at the average of above 7l. per ton, at a low standard. I do not wonder, therefore, that the mine is called a "sensation mine." What renders East Caradon more valuable than many others is, it has a 25 years' lease agreed upon; it possesses a great number of lodes; it is quite in its infancy (70 fathoms deep), and only a small quantity of ore yet sold, whereas the older mines have sold ore to the amount of some millions, developed all their lodes, and large dividends have been paid. East Caradon, therefore, has long and cheering prospects before it, with many important points to come off, which must increase its value materially every year. In the 50 fms. level they have passed through a course of ore 140 fms. long, and the eastern end still worth 20l. per fathom, and improving—a circumstance almost unparalleled in mining. With respect to the ends of the mine being occasionally poor, this happens in every mine. The ends are alternately poor and then rich, as every miner well knows. The mine is explored, new lodes cut, and the level and shafts extended and opened up, the reserves must naturally gradually increase every year; it cannot be expected that the reserves of a young mine are equal to an old one. Twenty years' working accumulates vast reserves, if the lodes are productive, and the mine worked properly. I cannot admit that it is wise at all times to take away more ore than is being discovered, but there is no fear as to the reserves in East Caradon accumulating; as the mine progresses, discoveries must be made, hence additions to the reserves. The weekly inspections which take place by so many agents I have no hesitation in saying is a very serious hindrance to the men and the work. I consider once a month quite often enough to inspect a mine, as it does not frequently happen that much change takes place in a week; and if the agent gives a faithful weekly report in the Journal, it must be sufficient for all legitimate purposes.

AN OLD MINER.

#### MINING IN REDRUTH—GREAT NORTH TOLGUS.

SIR,—I am not aware that I am at variance with the received authorities as to the formation of the Cornish killas; on the contrary, I understand that the modern researches of the first geologists have almost established the fact of the identity of the age of the old red sandstone and the Cornish slate, by means of the evidence of those fossils that "Molauk" takes it for granted do not exist in it. I am aware that there has been a great deal of discussion on this point, and probably more evidence will be required to solve the question to the satisfaction of all enquirers, but I believe the weight of testimony, so far as it has gone, is in favour of the statement that I have made. Possibly some of our Cornish friends will be good enough to give us some further information on this subject. I have very few authorities by me at this moment to refer to on geology, but in the "Engineers' Manual of Mineralogy," the first that comes to hand, p. 21, I find an opinion thus stated:—"The slate, or killas, of Devon and Cornwall is rich in metalliferous veins; but its precise degree of antiquity, as compared with that of Wales, is not satisfactorily decided; it is thought, however, to approach in age the old red sandstone formation, which rests immediately on the Silurian system, and perhaps to be a portion of it." It will be seen by this that I have endeavoured to establish no such theory of my own, and that I have not in my innocence, as "Molauk" supposes, confounded the primitive with the sedimentary rocks. I may say, however, to my soft though crusty friend that I have taken fossils from deepcuttings in the really primitive slates, a proof that, notwithstanding his dictatorial "Sir,"—"an essential characteristic of clay-slate," &c., he really either knows very little of what he is propounding, or that he knows more than all our other authorities put together, which, from his dogmatical dictation, I can have small doubt is about his estimate of his own abilities. I do not know whether he intends his hypercritical quibble about my making use of the word metal in speaking of the contents of a lode as serious or otherwise. If he meant it as a joke, it is all very well; I am as fond of a bit of fun as he can be. But if he is serious, he belongs to the stiff-necked school. If I become his disciple, it is plain I must not talk of a course of ore, but of a formation of sulphuretted copper; or of a course of oxide of iron, not of tin alone. I must say, we have broken, not 1000l. worth of copper, but of the sulphate of copper. I must not say there is so much value of metal to the fathom in the lode, unless it is malleable or native copper. Very good, then; let us take care of our chemistry, and beware of these vulgar errors, that sound so harshly on the chemical ears. With reference to the shell of the earth, I can only say I believe it to be granite, and I am inclined to think I must continue in that belief, unless some great luminary, or great bore, is enabled to get down deep enough to prove to the contrary. No doubt, "Molauk" knows well enough that at present, from the water, I cannot get down to the 30 fms. level in Great North Tolgus to prove the accuracy of the statement made as to the ground, but I can conscientiously say that, from a personal examination of the burrows, and the waste from washing at the two shafts, 70 fms. apart, I consider there is evidence to prove that the upper line of a very good and extensive formation of copper ore has been found, and the analogy of the metallic formations in the surrounding mines is a sufficient guarantee, to my mind, of the lasting qualities of this.

M. F.

#### WHEAL GRENVILLE.

SIR,—Your correspondent, who signs his letter "A Thinking Man," is, I fear, one of those individuals who read and think to little purpose. Any other person who read my letter on Wheal Grenville would at once understand that the call of 2s. per share, made at the meeting, was sufficient to pay off all liabilities, and not that they were already paid off. The call made was for the purpose of freeing the mine from all debt, and it is a fact that 2s. a share was amply sufficient to do so. All shareholders in Wheal Grenville must know such to be the case, and if "A Thinking Man" would arouse his thinking faculties into action for a minute or two he would also know it. I have no wish to depreciate other people's property, but, were I so inclined, I could make some remarks on at least one of the mines "A Thinking Man" mentions in his letter, which would not be very palatable to him. I tell him that two can play at that game. What does he mean by saying "that the merchants in the neighbourhood of the mine would only be too happy to receive what is due to them?" Does he mean to insinuate that the merchants are uncomfortable about their debts? I tell "A Thinking Man" that he ought to be ashamed of himself to hint such a thing. Where is the merchant in Cornwall who would not think himself fortunate to secure the custom of Wheal Grenville? The committee of management consists of men of business, men of honour, and men of substance; but this part of his letter does not concern me as much as these gentlemen, and I trust that they will see the necessity of giving a reply to his uncharitable insinuation. That the merchants' bills have been heavy the last quarter I readily admit, and so has also the labour cost, for the mine has been worked in such an energetic manner that the expenses were necessarily great. The fact is, we know we have a splendid property in Wheal Grenville, and are, therefore, sinking the shaft and laying open more ground as fast as it can possibly be done; and what is of the utmost importance, the mine is being worked fairly, so that when other mines are commenced they will be continued; worked fairly, I say, and not like some other mines, from which the ore is all taken away as fast as it is discovered, just for the purpose of paying one or two di-



videns. Why, if this system had been adopted in Greenville it could now be paying dividends; but the agents know too well what they are about, and will not "pick out the eyes of the mine" to please anybody.

Let my readers refer to this week's report, and they will notice a great improvement in the mine since the meeting. I expect other improvements soon. Before I conclude, allow me to say that my statement, "That the call made at the meeting of 2s. per share was amply sufficient to clear off all liabilities," is strictly correct.—Dec. 3.

A CAUTIOUS MAN.

#### GOLD MINES IN WALES, AND THEIR MANAGEMENT.

Sir,—Several gold companies have been established, and from the letter of your correspondent, of Nov. 15, signed "A Traveller," gives every prospect of their succeeding if, as he observes, the management be right. There is one point, however, of which little has been said, and this is a question of great and vital importance to the success of the various companies—Does the gold permeate the whole of the lode, or does it occur at intervals, and in pipes or veins only? If only in portions of the lode, much waste or cost must arise from crushing the whole quantity, which, I am informed, is the case with two of the companies now established, who are crushing the whole of the ore raised in exploration of the mines. If, as I suppose to be the case, that 1-20th of the quartz extracted in the development of the mine will only yield gold, then labour and expense are thrown away upon 19-20ths of the quartz, which would effectively remove the chance of getting dividends, unless the quartz be very rich indeed. I am led to make these remarks from circumstances that occurred to me during my recent visit to the East Clogau Gold Mine, and subsequent thoughts relating to it. Previous to my visit, gold had been discovered in St. James's lode No. 2, and I myself broke and brought away stones of ore containing gold, one stone of which gave at the rate of 81 ozs. of gold to the ton. I observed that a total change had taken place in the character of the quartz, and, upon examination, found the men had cut through a vein or pipe of auriferous quartz of about 2 ft. in thickness, of a deep yellow colour; and, having passed through it, were again working in the ordinary quartz. This gold has since been discovered, which, I suppose, is the result of having passed through another pipe. Since the above, I have had several long conversations with a gentleman thoroughly conversant with quartz gold mining in Australia, and from him I learn that the gold occurs in a similar way in the mines that have come under his immediate notice in that colony. This may or may not be the case in all the mines in Wales; however, I think where a portion of the lode presents indications of a like character referred to, it will be well for the managers to sink or rise, as the case may be, upon these particular spots, and thoroughly explore them, and the result will, I anticipate, be a large yield from a small amount of quartz. There are, doubtless, many parties who have seen more of gold mines in Wales than myself, and I think it will be well if they would give the public the benefit of their experience in these matters through the columns of your widely-spread publication.—Dec. 4.

GEORGE SEARBY.

#### EAST BRONFLOYD MINE.

Sir,—The reports from this mine for the last six months have invariably told the flattering tale, that in one place the lode is worth 25 cwt. of lead ore per fm., and in another from 20 to 25 cwt. Now, assuming that the eight men are so well employed as not to earn more than the ordinary monthly wages of the district—say, 3s. per man, and 1s. per man for materials—they must from each of their bargains have opened from 24 to 28 tons of ground during the period referred to above; thus, from both bargains, say 45 fms. of ground: multiply this quantity of broken ground by the agent's regular and continuous estimate of its value, we should have from 45 to 55 tons of lead ores on the floors. I am glad to see that the crushing mill is to go to work in a few days, because speculation will then be beyond the mark; but, in the interim, I am open to make a challenge of 10s. to be paid by the losing party, and dispensed by you towards the Lancashire Distress Fund, that 10 tons of ore in the rough or in the stone cannot be scraped together within the boundary of the mine. Further than this, if the challenge is better liked in this way, I will offer 10s. to 20s. (to go to the same fund), that the floors are not, at the present time, weighted with 5 tons of ore, nor has that quantity been broken since the mine since this company started. I have come to this conclusion by attention to the way legitimate mining in this country is frustrated by these ridiculously absurd reports, and I hope your commendation of the system will induce you to insert this letter from—

A MINER.

#### OLD WHEAL NEPTUNE, AND ITS MANAGEMENT.

Sir,—A "Cautious Man," having thought proper to put some impertinent questions respecting the formation of this company, as a director I have taken it upon myself to reply, not for his satisfaction, but to show how false and hollow his insinuations are. 1. Mr. Halse states—"It is true that a correspondent who was a large shareholder asked my opinion of the mine, but I told him I knew nothing of it, and advised him to get the mine inspected by some disinterested agent. He took my advice, had a report sent to him, and gave his broker orders to sell 100 shares. This is a tissue of untruths. Our agents can prove that the mine, from the commencement of operations to the present time, has not been inspected by any agent; that only one order has ever been applied for, and that has never been used; and if an order to sell 100 shares has ever been given, it has never been acted upon. I am happy to say that the whole of the shareholders have perfect confidence in the merits of the undertaking, and I challenge Mr. Halse to prove the sale of a single share.

2. The mine was knocked on the expiration of the lease, in 1822; there being sixteen lords, a renewal could not be obtained; the old cost-books, now at the office of the company, will prove it made a profit of 9600. The last two months it worked.

3. There are sixteen disinterested gentlemen of the highest standing and character, each holding 100 shares. Without their consent I consider it would be as impudent of me to give their names and addresses as it is for a perfect stranger to ask for them.

4. For the lease and promotion 15000. In cash and 2000 shares have been given (see the Mining Journal and the Times). The promoters for the lease, &c., disbursed more than the 15000., their interest will be contingent upon the success of the mine.

5. There have been 3100 shares paid upon, and 900 remain to the credit of the company; and if the number allotted is not sufficient to bring the mine into a paying condition, one of the directors has agreed to take all the unallotted shares at par. No free shares have been issued at all.

The managing director, who has devoted nearly all his time for six months past, and his brother directors have not received any fee, neither will they until the mine is in a dividend state. The salary of the secretary, rent of the offices, and stationery are under 2500. a year. The directors are no party in bringing this mine into notoriety: it will stand or fall on its merits. They hope to have the engine at work the first day of the new year, when a short time will prove the worth of the mine. A DIRECTOR.

#### THE MINING INTERESTS PROTECTION SOCIETY.

Sir,—I fully agree with your correspondent, "Argus," and with the writer of the article in the Journal of Nov. 1, as regards the desirability of forming a Mining Interests Protection Society. I have not the least doubt but that such an institution would be well supported by mine adventurers and shareholders in public companies generally, as it could not fail to be a great preventive of bad properties being brought into the market. Many persons are in the habit of coming down to this district, and representing themselves as men of capital, who, in connection with a "friend or two," are desirous of investing. By these representations they induce holders of mineral property to grant them an agreement for a lease, and with this they return to London. In two or three weeks the prospectus of a company appears, for double, and in many instances even more than treble, the capital required. The promoter turns out to be a man of straw, who obtains his living by getting up public companies. He will have a good round sum for his trouble, and then there are other "preliminary" expenses, which generally represent a few thousands. A property must be a very good one to bear these "preliminaries," but I think that a Protection Society would remedy this state of things to a great extent, and prevent shareholders' money from being squandered amongst promoters, and for introductions, &c.

Another mode of deception I may mention. Old properties, which have been abandoned by speculators, are resuscitated, and brought to the market again, accompanied by the usual "first-class" reports, promising enormous dividends, which, however, are never realised. Many of these properties are virtually worth nothing, and the only reason they are brought to the market is to secure a bait for the promoters. A Protection Society would be a safeguard against such schemes being carried out. I trust that a few spirited London gentlemen will take the matter up, and that we shall soon have a Mining Interests Protection Society in full operation. HENRY EVANS, 105, Commercial-street, Newport, Monmouthshire.

#### SHAREHOLDERS' PROTECTION SOCIETY.

Sir,—In a past number of your valuable Journal a suggestion was thrown out for forming a society of this kind, and certainly it would be most useful to watch the various hubble schemes that are daily tempting the unwary to ruin, and to prosecute directors and officers of companies where frauds have been practised, either by withholding facts from the knowledge of shareholders or by false representations. I could mention one company, which required a capital of 100,000., and began business with about 15000. only, having an Hon. and M.P. for chairman, and, individually speaking, highly-respectable men for directors. The greatest falsehoods were published of the prospects of this company's dealings, and the few bona-fide shareholders that there were were kept entirely ignorant of the truth; meetings that should have been held having been postponed, with no other object than that of concealing the position of the affairs. Of course, this ended in the bankruptcy Court, and, if the shareholders have any spirit, they will make the directors pay all the debts, and repay what they have paid on their shares. Another instance is—I have written to the secretary of a company, in which I am a shareholder, in vain for a list of its shareholders, and I find, also, that no such list has been left with the Registrar of Joint-Stock Companies, as required by law, notwithstanding there is a penalty of 5s. a day for such default. Now, in the event of a break-up of this company, where is a true list of the shareholders to be found? The Registrar of Joint-Stock Companies ought, I think, to be required to prosecute every case of such default as this. The neglect of the performance of these duties by companies can only arise from sinister motives. "A Shareholders' Protection Society" would look into all such matters as these, and teach men who are too fond of appearing on paper as directors that they have duties for which they will be held responsible. SUBSCRIBER.

#### THE STEAM-ENGINE—COMPETENT SUPERINTENDENCE.

Sir,—I believe it has generally been acknowledged that the high state of perfection to which the Cornish steam-engine has been brought is chiefly owing to the energy and ability of her engineers, and that, although the principle was given by Watt, it is the improvements introduced by these engineers that has given it its world-wide fame, both for safety and economy. These engineers have generally been well educated, and although there have been instances of men raising themselves from obscurity by natural talent, yet we may safely attribute their success to the happy conjunction of theoretical knowledge with that of sound practice. I have been led to these remarks by the question lately raised in some of our mines in consequence of the death of Mr. James Sims, one of our most celebrated engineers, as to the practicability of allowing their valuable and important machinery to remain in the hands of uneducated and comparatively inexperienced working engineers; and I am surprised to find this step has already been adopted by the adventurers of Wheal Bassett, who have decided on allowing their extensive machinery to be under the superintendence of one who, it is said, can neither draw or calculate, and whose experience has been confined to the erection of a few engines to be held before named. I understand the agents of these mines have agreed to suppose a breakage should occur in this mine from want of proper inspection of the machinery, then: "ing a loss of perhaps hundreds of pounds to the adventurers, will the agents really re-face the loss brought on them or not? and even although this mine should go on safely for two, six, or twelve months, will the adventurers really believe they are right in allowing their machinery to continue working without the constant inspection of an efficient engineer? I hold, Sir, this principle is dangerous in the extreme, and I appeal to mining adventurers, both in and out of the county, to protest with myself against the adoption of a step which may be the means of bringing on us great losses, and which is objectionable, inasmuch as it attacks scientific attainments, and

tends to check the progress still making in perfecting that machine which has been the chief means of exploring after those riches with which our county abounds. I am informed that at Wheal Bassett comparative poverty has been assigned as a reason for this step, but I believe it is generally acknowledged that it is bad policy to lessen an agent's salary while the mine is in prospect, as that is the time when his energies are most required; does not this apply to the adventures of Wheal Bassett, where their machinery has been weakened by some 18 or 20 years' working, and they can least bear the expense of breakages, we find they deprive themselves of the aid of a duly-qualified inspecting engineer? I hope to see further communications on this subject, as I believe it to be a matter of paramount importance to the interests of the mining community at large. Redruth, Dec. 4.

A MINING ADVENTURER.

#### LADY BERTHA.

Sir,—In last week's Journal I notice some remarks as to whether the mine is carefully inspected previous to agents signing the reports, &c. My reply is: Yes, we report twice weekly, with our names attached, which appear in your columns regularly. As to the officials selling their shares, I believe I did hear one of them say he parted with a few shares some three or four weeks since. Surely I have nothing to do with this, and I consider that every man has a right to do what he likes with his own property. The communication of "B." would appear to be written with one object—that of endeavouring to frighten holders out of their shares. I am pleased, however, to inform them that the lode in the 30, east of the little cross-course, is still worth 18s. per fathom, and that the ground in the cross-cut at the new shaft is favourable. These are points of no small importance, as this end (the 30) is now just under the new shaft. I challenge "B." or his inspectors, as to the truthfulness of our reports on the workings of the mine. In confirmation of this I point to the regular samplings which we have made during the past three years.—Dec. 4.

F. C. HANFUR.

#### MINING NOTABILIA.

(EXTRACTS FROM OUR CORRESPONDENCE.)

WHEAL GRYLLS is one of the richest mines that has been worked in the district for many years past; in fact, Georgia lode is at present the most valuable one that has been worked here since Great Wheal Vor was at its best, the large stones of tin, almost pure, weighing 3 or 4 cwt. each, which come up daily speak for themselves. There is no wonder about South Grylls shares being fast taken up, and there is no doubt amongst the miners acquainted with it but that it will prove equally as rich a mine.

NORTH TRESKERRY.—At the meeting, on Tuesday, a dividend of 1s. 6d. per share was declared, and a cash balance of 3500. carried to credit of next account. The accounts were brought up to the end of October, and ores only credited that were sold in September. To put the mine in a sound financial position three months' costs were charged against two months' ore, so that at every future meeting shareholders can calculate what their following dividend will be. The lode in the 67 east has considerably improved since the meeting. This mine may be regarded as one of the cheapest, and at the same time one of the soundest, dividend mines in Cornwall.

WHEAL ARTHUR.—It is gratifying to find the prospects at this mine are so very cheering. In resuming the sinking of the shaft a short time since, on the lode, they have broken some good stones of ore, with indications of a still further improvement. The next sampling will, it is expected, be about 40 tons of good ore.

EAST WHEAL NEPTUNE.—This mine has been in operation for some time by a highly respectable party, who have done a large amount of work—sinking shafts on the different lodes, and driving an adit about  $\frac{1}{2}$  of a mile long, and now within 50 fathoms of three well-defined lodes at 50 fms. from surface, so that the mine can be worked for years without machinery. The sett is surrounded by good mines—Wheal Grylls, Old Wheal Neptune, &c.—which have yielded immense quantities of both tin and copper. The strata are of a congenial character for mineral, and a little more outlay will bring the mine into a paying state.

At NORTH TRESKERRY the 77 fm. level, east of sump-shaft, has come into a fine lode, worth 18s. per fm., with a good appearance. Treasurer's share is also improved. A dividend was declared at the meeting, on Tuesday last, and two more will be paid bi-monthly, which are already earned. Few mines can say this.

COOLARTRA and BOND (Monaghan).—The discovery of lead ore at these mines still holds on; the water being quick, it has been decided to drive north on the lode, to test the continuation of the ore in that direction. So fine a discovery at a depth of only 36 to 40 ft. has not been made for some time in Ireland. It is intended to throw out flat-rods from the engine to this shaft, by which means two mines virtually may be wrought by the same engine. This is a good arrangement, and will enable large returns to be made. It is known there is a good lode gone down in the bottom of the 35, the greatest depth of the mine; this will have to be sunk on for 10 fms., when it may be stopped at a trifling charge. Above the 35 over 1670 tons of lead ore were raised and sold—an excellent precedent for the shallow discovery just made on the same lode. It is but fair to infer that this parcel of ore will be equally productive. At the Tassan Mine, on the same lode, the 70 fm. level is the richest yet tested; so that if anything can be calculated on by analogy or precedent the Coolartra and Bond cannot be surpassed in these important points. The first meeting of the company was held at the office, 27, Hope-street, Glasgow, on Wednesday, when the officers, committee of management, &c., were appointed. A day will shortly be named to limit the applications for the remaining shares not disposed of. The men at their late treat were promised a second on the occasion of the sending off the first cargo of lead ore; they all declare it will not be long before they again meet at the festive board.

ROSEWARNE CONSOLS.—Ellen's shaft has been sunk 15 fms. through a continuous and rich course of copper ore, still holding good in the bottom of the shaft. There is little doubt that it will continue till it meets with and in the elvan, about which much more valuable discoveries will, no doubt, be made.

WORVAS DOWNS (in Lelant) appears very likely soon to become one of the most prominent and productive tin mines in the locality. It is now fairly laid open, and in full course of working; and, judging from the reports, will, no doubt, shortly give good profits. A great deal of work has been done with very little outlay—less than 60000., a smaller sum than some schemers ask as premiums for less valuable estates.

HAY VALLEY MINE, in 1000 shares, half a mile west of Callington, Cornwall, has been working on a small yet efficient scale since May, 1861. Two shafts have been sunk on the brow of the hill in a line of gossan, capel, spar, &c., and levels driven therefrom east, west, north, and south, short distances, without meeting with any wall. Nearly the whole of the stuff broken from this extraordinary formation must be stamped, as it all contains tin more or less. An adit level is driven into this hill about 40 fathoms towards the above-named point, and which will be nearly 20 fathoms deep on a little further extension. A few months ago it was deemed necessary to sink an air-shaft from surface to the end of the adit level; and, to our great surprise, we came suddenly upon a fine floor of tin ground at 9 feet deep, which has continued to the present depth of 11 fathoms, and apparently gone down even better below adit. This additional discovery, which is 10 fms. east of shaft first sunk, induced the shareholders (who have amongst them some influential gentlemen and several respectable thoroughly practised tin mine agents) at once turn their attention to erecting stamps, &c. Within half a mile of the operations of the mine Lord Ashburton has kindly granted the Burland Bridge Valley for our stamps, and stream of water free. The sett is granted by his lordship on very favourable terms, the dues being 1-20th for 21 years. Such liberality is, of course, an inducement for parties to try their luck in this hitherto neglected district for tin. We have erected an excellent new water-wheel, to which eight heads of stamps are attached; and we are now laying down dressing-floors and building a calcining house. The stamps are to work last week, and, so far, the staff is turning out equal to expectations. We have opened the ground at the mine from surface by the side of the hill, and commenced working it like a quarry. No machinery required; and as six men will be sufficient to open ground and break stuff for stamps, we shall ere long realise fair profits, after stamps, dressing-floors, &c., are paid for, out of returns. Any respectable practical tin mine agent may inspect the mine, &c., to whom our indefatigable agent (Capt. Thomas Taylor, of Redmoor Mines) will afford every attention.—W. WATSON, Calstock, Cornwall, Dec. 3.

EAST TRESKERRY.—The works here are progressing satisfactorily. Practical authorities state, without hesitation, their belief that a rich course of ore will be met with in the 55 fm. cross-cut in the course of a few weeks. The 40 end is producing some magnificent copper and silver-lead ores.

WEST BEAM and BAGTOR MINE.—If ever a mine cut up at the nick of time to serve the purposes of itself and its compeers, it is certainly West Beam, in the 75 fm. level, where the lode was supposed to have died out. This opinion was expressed by a certain class of ignorant know-nothings, but, to their sorrow and discomfiture, it has been found that the lode is not dead, though it is, fortunately for the present proprietors, buried, and will shortly be raised and dressed. This, assuredly, is serving the purposes of this mine—now for the serving of its compeers. Prejudice, that canker of the mind, once engendered is hard to be got rid of. The only argument that could be possibly be adduced against the Bagtor Mine was—"Oh, the tin mines of the Ashburton district do not hold down. Look at West Beam!" Ay, now, look at West Beam. At Bagtor they have a long way to get from the adit level to the 70, and then they need not quail or fear: the West Beam is a perfect contradiction to all such ill-grounded suppositions. The Bagtor Mine possesses lodes as good, stratified as fine, and every element constituting a tin mine in a tin district. The discovery, also, is of the utmost value to the eastern part of the West Beam sett, where the Wheal Union lode is cut off by a cross-course—and such a cross-course! When I visited the mine a short time since, the old adit had not been entered before for many years, a splendid sight presented itself. The exhalations of oxides of iron had formed themselves into stalactitic and stalagmitic masses, pendant and incumbent in the most fantastic groups, plainly indicating the highly mineralised condition of the lode whence these beautiful creations had emanated. I have no doubt the search for the tin lode, disclosed by this cross-course, will be largely rewarded. That it may be so is the wish of—G. H.

HUNTINGDON (Tin).—The share list for this mine is progressing most favourably. The mine being well known for the fine quality of its tin, renders it a favourite in the market; no doubt can be entertained but it will soon rank in the first class of Devonshire tin mines. The recent discovery at West Beam is most important, as proving the fallacy of the notion that the Devon tin mines do not hold in depth. If ever any lodes gave proof for continuing in depth, the Huntingdon does in a pre-eminent degree. All the necessary conditions are observable, they have only to be tested and followed to be proved so. The country appears to be a settled ground, and not disturbed by slides and heaves. Though these by no means militate against the productiveness of a lode, yet they render mining difficult, and tend to alarm the inexperienced when they are so encountered, as they think the lodes for ever lost if cut off by a slide or a cross-course.

ROARING WATER.—We understand good progress has been made this week in the share list of this company; parties of considerable influence have joined the concern, and taken a good number of shares. The improvement in the Orchard lode continues, and promises well for a course of ore.

NORTH WHEAL LUDCOTT has been visited, during the week, by a large party of gentlemen well versed in mining matters, including practical men of the locality, who all seem much surprised at the very good prospects presented, the lodes being identical with those of Mary Ann, Trelawny, and its namesake, Wheal Ludcott. The operations are being conducted by Capt. William Hancock, one of the most experienced lead miners of the county. Several lodes are proved running through the entire length of the sett, with a good engine-shaft sunk to the 50, and levels are driven for a considerable distance, so that upon a discovery being made in the adit level above a rich mine may very soon reward the adventurers for their outlay.

TY-MAWR GRANITE QUARRY (Nevin, Carnarvonshire).—The quality of the granite produced at this quarry is described as admirable; it closely resembles in its main features the famous Aberystwyth granite, and in this it differs from any other to be found in the whole of Carnarvonshire. The stone is remarkably hard, and is beautifully grained, whilst at the same time it is most manageable, and can be squared by the workmen, with almost as much ease and regularity as slates themselves. The face of the quarry, which extends about 400 yards, is close on the sea beach, there being a depth of 8 ft. at low-water mark, so that vessels of 200 tons burden can run quite up to the pier recently erected, and, if required, at the rate of 15 tons per hour. A line of rails is laid all along the front of the rock both in the lower and upper galleries, and it is supposed to make cross lodes to the side workings, which will run into the

main line leading to the weighing-machine, which is placed just above the pier. In consequence of this judicious arrangement almost any number of men can be employed at any quantity of sets, kerb-stones, and building stones may be obtained. In one or two places there is a narrow shelf of useless rock, which will have to be removed before the real granite can be got at; but this can be readily done without either much trouble or expense. Altogether the present state and prospects of the quarry are highly satisfactory, and up to this time it has been so conducted as to make it self-paying. One of the most important and extensive in Carnarvonshire.

TRELOWETH has considerably improved. The lode in the shaft sinking below the 144 contains more copper ore, and is of a promising character. In the sump-wine, sinking below the 134 east, the lode is still worth 25s. per fathom. In the sump-wine, sinking below the 134 east, the lode is still worth 25s. per fathom.

WHEAL GRYLLS.—The wine below the adit is worth from 120s. to 130s., and the 10, approaching this wine under, is worth from 25s. to 30s. per fathom. The 23 fm. level end is worth from 15s. to 20s. per fm. Anne's shaft is worth from 25s. to 30s. per fm.—P.S. Last month's sale of tin was 19 tons, and next month's sale will be about 24 tons, or more.

WHEAL BULLER.—The agents' report shows that the mine has considerably improved. The shafts, ends, winzes, and stopes are worth together about 200s. to 250s. per fm., and yet the shares, once at 1200s. each, are now at the absurd low price of 35s. to 60s. (per 256th share), or, say 12,000s. to 15,000s. only for the whole of the mine. This will become a great tin mine (as in fact it is now), and likely again to give great profits to the shareholders.

DUN MOUNTAIN.—An opportunity now offers of getting into a sound undertaking at a very low price, as will be shortly proved. While untended concerns are at present, here is one at 50 per cent. discount, including the new obligation share. A demand for the chrome would make these shares worth par.

GREAT RETALLACK.—It has always been the opinion of practical men that a large deposit of mineral would be found in depth, under the enormous mass of blende in the big lode. At times we have expected lead, and at others copper; though some persons have always expected that the latter metal would be found, and the indications at the present moment, the agent assures us, are such as to justify us in the expectation of a course of ore before sinking much deeper; and the blende pitches, with occasional sales of silver, ought to meet the cost of the mine. The October cost is 277s.; and the returns, 46 tons of blende, at 62s. 6d. per ton—1200s. 15s.; silver (say), 40s.; 40 tons of blende, at 30s. per ton—600s.; total, 2200s. 15s. For November, the cost is estimated at 300s.; and the returns, for sale, 135 tons of blende, of which 95 tons are of the same quality as that which sold at 62s. 6d. per ton; and, relying in full confidence upon the statement of the agent—that the shaft showed indications of copper—we thought the mine far below its value, selling as it has been for less money than many market mines making no returns whatever; and we, therefore, recommended the shares strongly in our last, and, to support our opinion, have purchased very largely ourselves. We hear, however, adverse reports as to the appearances for copper and silver, and in circulation on the market, in direct contradiction to the agent's report received yesterday, and which will be found elsewhere, and we have, therefore, sent a special agent to inspect the mine. Our opinion has been that with a call of 2s. per share at the meeting, to put the accounts in a good position, we ought in future to pay the cost of the mine from blende and occasional sales of silver; and if a course of ore should be met with in the shaft, shares would be worth 5s. each, and therefore we have considered they must be a good speculation at 1s. each, as a shareholder would have the fair chance of great gain, and, at the worst, would know the extent of his loss.—WATSON and CURELL'S Circular.

#### TRUTH'S ECHOES, OR SAYINGS AND DOINGS IN MINING.

The Mining Share Market has been unusually flat during the whole week, but not more than ordinarily, when comparing corresponding years, at the near approach of Christmas. Much heaviness prevails in consequence of the depression which has taken place in the prices of the leading shares, and the consequent loss of confidence. DIVERS GREAT CONSOLS, WHEAL SEVEN, and NORTH TRESKERRY, and several other transactions have been effected.—SOUTH TOLGUS, TINCROFT, EAST HANLEY, and SOUTH FRANCES have also been in request.—EAST CARR BREAS has fluctuated, and is still flat.—CLIFFORDS have been offered at lower rates.—STRAIT PARK, COCK'S KITCHEN, and GREAT SOUTH TOLGUS have changed hands.—EAST GRENVILLE and GREAT RETALLACK have been in fair demand, and prices are firmer.—NORTH DOWNS and WHEAL GRENVILLE have been dealt in, at lower rates.—NORTH CROFT and NORTH ROSEKRAVE have, as usual, fluctuated during the week, but there is a slight tendency to improve.—CARBOLDS have been in good demand, and prices have advanced.—EAST HANLEY, GREAT WHEAL BURY, WHEAL HANLEY, and KITT (St. Agnes) have been in request, with a strong tendency to advance.—CARNARVON VINE has been enquired for, in consequence of a reported improvement in the lode.—ST. JOHN UNITED, WHEAL GRYLLS, and GREAT WHEAL FORTUNE have been in good request.—NORTH MINERAL, BRYN GWIG, and LONG RAKE have been among the favourites of the week, the former having advanced.—PENNAN-DREAS have been freely sought for, at higher rates.—EAST CARBOLDS have, as usual, fluctuated in price, though they have been freely dealt in; and notwithstanding the efforts to depress the shares, with a view to compel purchasers to "make up" at quoted prices, the scarcity of stock was entirely manifest on Monday and Tuesday last, when shares were bought in against the sell, and but very few could be found in the market, even at advanced prices. The shares were offered at much lower rates for the account and time.—MARKET VALLEY and LUDCOTT have receded.—TRELAUNTS have been done at higher prices.—WEST CLADON and MARY ANN have been little in request.—LADY BERTHAS have vacillated, and, although scarce for cash, are offered at lower rates for the account.—EAST RESELL and WHEAL EDWARD have been dealt in, the former rather largely.

EAST CARADON: The water is sufficiently forked down to enable the inspectors to go to the 70. On the caunter lode, the 70 east is worth 30s. per fm.; the 70 west (north part), 30s. per fathom; the south part has not been taken down, and was left worth 14s. per fm.; the 60 east, 12s. per fm.; the 50 east, 20s. per fathom. On new lode, the 60 east is valued at 10s. per fathom; the 50 west, 8s.; all other places much the same as for some time past. The next monthly sampling is computed at 468 tons. The last monthly sale of copper ore, on Oct. 20, at Truro, was computed at 490 tons; this has been since weighed off, and found to be 503 tons 1 cwt. 2 qrs., realising 3710s., being an excess of about 237s. Notwithstanding the interruption of the works during the past fortnight, the next monthly sale will be very little under the computed amount of the previous; and I am positively assured that the next dividend will be 1s. per share, and an addition to the balance which will be in hand. A circular has been issued by the secretary to the shareholders, cautioning them against being influenced by parties who by their representations of the mine are endeavouring to induce them to part with their shares. It is to be hoped that such precaution may have the desired effect, and infuse confidence in the minds of those whose timidity might otherwise be overcome by the sophistry of the unscrupulous.

WEST DEVON is represented to be looking more encouraging, the lode in the 80, east and west, presenting appearances indicative of early improvement; and the lode in the wine, sinking below the 40, is large, and of a very promising character, its composition being very congenial for copper ore, and is yielding fully 2 tons per fathom.

PENNAN-DREAS UNITED: The shaft has been suspended for the purpose of cutting the plat at the 130 and other necessary work. On new lode, the 60 east is valued at 10s. per fathom; the 50 west, 8s.; all other places much the same as for some time past. The next monthly sampling is computed at 468 tons. The last monthly sale of copper ore, on Oct. 20, at Truro, was computed at 490 tons; this has been since weighed off, and found to be 503 tons 1 cwt. 2 qrs., realising 3710s., being an excess of about 237s. Notwithstanding the interruption of the works during the past fortnight, the next monthly sale will be very little under the computed amount of the previous; and I am positively assured that the next dividend will be 1s. per share, and an addition to the balance which will be in hand. A circular has been issued by the secretary to the shareholders, cautioning them against being influenced by parties who by their representations of the mine are endeavouring to induce them to part with their shares. It is to be hoped that such precaution may have the desired effect, and infuse confidence in the minds of those whose timidity might otherwise be overcome by the sophistry of the unscrupulous.

TINCROFT: A special general meeting was held on Monday, when it was resolved that the mine should in future be conducted under the Cost-book System. This is one of the numerous scrip companies established before the passing of the Joint-Stock Companies Act. There is only one in existence now, the Tassan Consols Mine, and it is not at all unlikely that in a short time there will be no more. The mine is well and profitable system but in the records of the past. At a board meeting of the directors, on Thursday, a dividend of 5s. per share was declared, payable on the registration of the scrip certificates; leaving a reserve fund of 3200s., and assets of about 8000s.

WHEAL HANLEY: The lode in the wine sinking below the 100 has again improved, and is now worth 100s. per fathom for the length; this wine, which has been sunk 8 fathoms, is reported to have returned and sold 1100s. worth of tin, and places are looking more favourable than for some time past, and there is little doubt but that a large body of valuable tin ground will be laid open when the wine is communicated with the next level.

GREAT WHEAL BURY continues to look remarkably well, a very general improvement having taken place, and, from the returns now making, the old mine (or, as it is designated now, Bury proper) is more than paying costs. They have sold this week, upwards of 21 tons of tin, and about 1400s. worth of copper ore last week, being a return for a month, which will place the mine in that position which has been long looked for. At Roscavan Mine they have several improvements, which are likely to lead to important discoveries.

PROSEER (Breeze): The lode in the 40 east is 3 ft. wide, improved in value, and, being so much more water, which is deemed a very important feature, as they are now approaching the Porth-croft lode, which had an excellent appearance in the level above. An improvement may be expected here in the course of a few days. All other places are looking as last reported.

STITHY CARNMEL: The flat road shaft is down below the 60 fm. level, where the lode is large and of a very promising character. At the intermediate levels there are several important points to come off, to accomplish which every exertion is being made. The great object in view, and which appears to be paramount to all others, is to reach the run of tin ground which is so productive in Great Fortune and near the boundary. Towards affecting that purpose the most energetic measures are being adopted, the attainment of which will greatly advance the interests and prospects of the mine.

WHEAL HEARLE: The lode in the 122 east is worth 2s. per fathom; in the game level it is valued at 6s. per fathom. The 110 west, for the last 10 fms., is worth 5s. per fathom, and the stopes in the back are of the same value. The wine in the bottom of the 100 is also valued at 8s. There are several points to which the operations are being directed, when completed, will afford greater facilities for working, and, in developing some side lodes, which will, no doubt, considerably increase the nature of the ground has taken place in the bottom of the engine-shaft, which can now be sunk with far greater facility. The mine is represented to be looking remarkably well.

ST. JOHN UNITED: The audited account of the financial position of the company has just been issued, preparatory to the first annual meeting, to be held on Wednesday next. The report appended to the circular is of the most encouraging and satisfactory character, and there is no doubt that this mine will soon be in the dividend list. There is a credit balance of 451s. 10s. 8d.; arrears of calls, 616s.; with a balance of an uncalculated capital of 4125s. Since the accounts have been made up they expect to sell (Saturday last) black tin to the amount of 397s. 15s., and to-day they expect to sell about the same quantity, which are the returns for the month, and will give a good profit. More would have been sold had it not been for stamping power being sufficient, but the new sixteen additional heads will go to work before the meeting, after which the increased returns and profits will be in proportion.

CAMBORNE VINE: The improvement in the 170 east, which took place last week, continues to look well; the lode is 2 feet wide, with a very promising appearance, and is worth from 15s. to 20s. per fathom.—BARSET and GRYLLS continue to look remarkably well. They sold on Saturday last 12 tons 11 cwt. 13 lbs. of black tin, realising 810s. 6s



**IRON RAILWAY CARRIAGES.**—The Pennsylvania Railroad Company are having iron cars constructed for use on their road. It is supposed that they will be much lighter and stronger than wooden cars, last much longer, and be much more secure from accident.

BRITISH MINES.

drive north of the 30, to intersect north lode, by four men, at 120s. per fm., until the stopes which they are now in, are passed through, and which gives us to hope for profitable hauls from the shaft. The next step will be to drive a crosscut to the westward, to intersect the new lodes worked on at Knight's, the northernmost of which we have now in the end, for which 140s. per fm. is paying till cut through. The stope in back of the 40, on old south lode, by four men, at 22s. 6d. per fm.; lode 7 ft. wide, productive throughout. The stope on new north (or Knight's) lode, by four men, at 11s. lode 2 ft. wide, producing fairly. The 30, to drive west on new south lode, by two men, at 28s.; lode kindly, indicating an improvement. Knight's shaft, at the 20 west, on old south lode, to drive by four men, at 38s.; the lode here has reached the western limit of the main strata, and it is probable that the rest of the shaft will be without much light to expect. The stope in the back of the 20, on new north lode, by four men, at 25s. 6d.; lode fairly 4 ft. wide, and we may expect a considerable amount of productive ground overhead, as many points of the driving gave rich work, as well as a good leader gone down; the stope in the same level, still further east, by four men, at 19s.; lode 2 ft. wide, yielding good tin stuff. The stope in back of the 20, on new south lode by six men, at 23s.; lode averages 4 ft. wide, but at this moment is interfered with by a junction with a causer.—Engine-shaft: A cross-cut to drive north of shaft, by six men, at 48s., shaft and engine-shaft, by four men, at 30s.; the latter has been driven on from the surface opposite this shaft, and the ground indicates a very favourable intersection at this depth. The stope on the new south lode, at the 30, by four men, at 37s. 6d.; this back we are pushing up for two reasons: first, in the hope of finding profitable ground; and, secondly, as a means of outlet, ventilation, &c., by connection with the workings at Knight's. The entire filling, landing, and wheeling throughout the mine from every point of operation, by several bargains, amount in sum total to 44t. 16s. The whim drawing at Trestrail's, at its 9d. per m., every level included; and spalling, at 10s. per ton, are the only expenses to be expected, except the underground operations for the month; but it is, perhaps, only necessary further to observe, that the outlay incurring by the two cross-cuts at Trestrail's 60 offer great chances of success, and, certainly, means of supply beyond any other point, being in the very centre of ground untouched at several levels, both vertically and horizontally, for great extent between engine and flat-roof shafts; whilst the position of Trestrail's is immediately



convenient for discharging the tin stuff into the stamps, passes on one side of the engine-house, as Knight's is for the other. We hope to sell, on Friday, 1300, worth of tin for month, with 14 very light heads, going by water. The completion of the steam-stamps is progressing most rapidly, and as the underground yield, in respect to quantity, appears quite likely to exceed all previous expectations, we must immediately set up additional heads. Then it is unnecessary to say that, should the tin stuff in bulk approach the opinion of the inspectors, as to value per ton of stuff, we have certainly before us one of the most valuable tin mines in the county, taking extent and requirements into account.

**CROOKHAVEN.**—H. Thomas, Dec. 1: Saturday last being the setting-day for December, I beg to hand you the following report:—The engine-shaft is 5 fms. 1 ft. under the 60 fm. level; set the shaft to nine fms. 1 ft. under the 60 fm. level; the ground in the shaft is composed of friable quartz, flookan, mudi, and spots of yellow copper ore. The ground is perpendicular, and if anything more compact. In the intersections, or joints, strong native copper is detected. I think we are near a change for the better. The 60 cross-cut south is driven 13 fms. from the shaft, set 6 feet to four men, at 61. The dip of ground in this end took a sudden change in the past few days from south to north, about 2 feet in a fathom. It is again changed to its regular south underlie, and from the appearance and change I think a lode is near at hand, probably the gossan lode. We had to stop the engine on Saturday afternoon for the purpose of cleansing and making some alterations which were necessary to be done. I am glad to say 2 cwt. of coals are saved in 24 hours by the change made.

**CROWAN CONSOLE.**—J. Seymour, Dec. 4: The lode is still increasing in size, and is from 20 inches to 2 feet wide, yielding beautiful stones of black and yellow copper ore. We have a few kibbles of very rich ore now to be seen at the surface, and it must certainly give great encouragement to everyone that has an interest in this mining property.

**CROWLW.**—J. Roach, Dec. 3: Where the men are now working the lode is directed to be driven under the farmhouse, where it is said that large stones of ore have been dug up; this level contains patches of millstone grit, and at surface over it there are blocks of quartz of very great dimensions—I should say 5 tons each. The lode must exist, and no doubt we shall soon find it.

**CUDDAH.**—F. Puckey, E. Dunstan, Dec. 4: In the 75, east of Walker's shaft, we are still driving north, to cut through the lode. We have driven 2 fms., with no appearance of the north wall. As far as seen the lode is very hard, which makes it not easy for driving. The lode in the topes in the back of this level is still very large, and producing work for tin of about the same quality as stated in our last report.

**CWMEISIAN (GOLD).**—Capt. Williams, Dec. 1: East Mine Shaft: We have sunk 10 ft., besides making a pit, and cutting down perpendicular on east side 2 fms. We are preparing tackle for winding; the water increases.—West Mine: Some good lumps of galena have been obtained from the roof.—Waterfall Lode: We have driven the adit 9 ft. We have not yet driven to 1400, per fm. the ground is a little closer, with a little galena now and then.—Dressing-floors, &c.: The wheel and crushers I hope to complete this week. The machinery has arrived. We shall push on, as per instructions, with Mr. Mitchell's machinery, which has all arrived.

**DEVON AND CORNWALL.**—T. Neill, Dec. 3: At George's Charlotte, in the deep adit level east, no lode has been taken down since last reported on. In the rise, and also in the topes, in back of the deep adit the lode is worth 5 tons of ore per fm. In the cross-cut north, at the midway level, the ground is favourable, and contains small strings of ore, leading towards the lode. We are progressing satisfactorily with the water-wheel, work in shaft, &c.—William and Mary: The lode at the engine-shaft still looks well, producing 8 tons of ore per fm. The lode in the 22 west will produce 2 tons of ore per fm.; in the rise in back of this level the lode is worth 4 tons of ore per fm. In the 22 east there is no change to notice; in the cross-cut north at this level we have intersected a lode 3 ft. wide, underlying north, and worth from 2 to 3 tons per fathom, running parallel to the old lode driven on; we shall at once commence cross-cutting from this present end to intersect it. The lode in the winze in bottom of the 10, and also in the topes in back of this level, produces 4 tons of ore per fm. In the 12, west of water-wheel shaft, no lode taken down since last reported. No change in any other part.

**DEVON WHEAL BULLER.**—Wm. Stephens, Dec. 2: The sinking of Down's shaft progresses favourably. The men at the 55 east have almost completed the pit. I took the men yesterday that were in the 45 west and put them to drive west at the 55 on the cross-cut of the lode, from which they broke some good stones of yellow copper ore, such as I have not seen before.

**EAST AGAR.**—F. Pryor, W. Johns, Nov. 27: We are now in a position to put the engine in the house, which will be done with all speed. The water being in we cannot report on the levels, nor do we see it necessary to spend money in keeping the water by manual labour, when it will be saved on our completing the engine.

**EAST BRONFLOYD.**—C. Williams, Dec. 3: The lode in the slope west of engine-shaft is 8 ft. wide, consisting of slate, spar, jack, and ore, yielding of the latter 1 ton per fathom. The lode in the 10, east of engine-shaft, continues much the same in appearance as for some time past, being from 30 to 31 ft. wide, composed of quartz, jack, slate, and ore, worth of the latter 22 cwt. per cubic fathom, or equal to 14 1/2 lbs. price for driving, 1200, per fm. The ground in the engine-shaft is very favourable for sinking, and the men are making good progress. Some little delay on Mr. Green's part prevented us from having the crusher at work, but I hope that all will be right in a day or two. Now the frost is over, and the fixing of the dressing machinery is being resumed, we shall soon have all completed. The drawing and pumping machinery is working very satisfactorily.

**EAST BROOKWOOD.**—W. V. Williams, Dec. 4: If the ground continues as favourable for driving as it now is, I hope by the end of this month we shall cut the lode in the cross-cut now driving. We are meeting with branches underlying towards the lode, containing copper and mudi. I intend to attach a drawing-machine to our present little wheel, and run a chain therefrom, through the same level the rods are carried through; this will greatly facilitate the drawing away the stuff.

**EAST CARN BREA.**—T. Glanville, J. Scholer, Dec. 3: Middle Lode: In the 60, west of cross-cut, the lode will produce 2 tons of ore per fathom. In the rise in back of the 60 the lode will produce 1 ton of ore per fathom. In the 50, east of the cross-cut, the lode will produce 1 ton of ore per fathom.—New Lode: In the 50, west of the cross-cut, the lode will produce 2 tons of ore per fathom. In the rise in back of the 50 the lode will produce 1 ton of ore per fathom.—South Lode: In the 50 west the lode will produce 2 tons of ore per fathom.

**EAST CLOGAUL.**—Capt. Roberts, Dec. 1: I beg to hand you a report of our setting last Saturday, together with the quantities of ground driven in each level from the commencement. No. 2 level, on St. James's lode, has been driven under cover 20 fms. 1 ft., set to six men, at 111. per fm. The lode is 9 ft. wide, composed principally of auriferous quartz, and occasionally spots of copper. I am anxious to see an adit level driven to come right under the No. 2 level—say 9 or 10 fms. lower down, in order to prove the lode at a greater depth. No. 1 level, on St. David's lode, has been driven 21 fms. 5 ft., set to six men, at 51. per fm.; this lode is 3 ft. wide, containing quartz and spots of copper, affording good indications of gold. No. 2 level, on St. David's lode, has been driven 23 fms. 2 ft., set to six men, at 61. per fm.; the lode presents just the same hopeful appearance as for several weeks past. We have not yet cut St. John's lode in No. 1 level.

**EAST DARRIN.**—Dec. 2: At Taylor's shaft in the 116 cross-cut, driving north, the rock is composed of a dark blue clay-slate, which is favourable for driving. In the 104 east the lode is unproductive, and still disordered by broken up ground; in the same level west the lode is large, principally composed of hard porphyry, blende, carbonate of lime, and lead ore, producing of the latter about 6 cwt. per fm. In the 92 east the lode is from 4 to 5 feet wide, principally composed of porphyry and blende, producing from 5 to 6 cwt. of lead ore per fm. There is still a good deal of water issuing from the forehead, which prevents the work from being driven on. In the 92 west the lode is from 2 to 3 feet wide, principally composed of light clay-slate, blende, and stones of copper and lead ore, but not sufficient to value. In the 80 east the lode is composed of clay-slate, underlying south about 3 feet per fm., producing about 10 cwt. of lead ore per fm. In the 68 east the lode is from 5 to 6 feet wide, composed of a light clay-slate, carbonate of lime, not looking quite so well for lead ore as when last reported, now producing about 1 1/2 ton per fathom; in the rise over this level the lode is large, producing about 1 ton per fm. All the topes and pitches continue to yield their usual quantities of ore. We have to-day sample 95 tons of good quality silver-lead ore.

**EAST DEVON GREAT CONSOLS.**—T. Richards, Dec. 2: In the 70 west the lode is 2 ft. wide, of promising character. In the rise in the back of this level the lode is 3 cwt. of lead per fm. The lode in the 40 south looks more promising for lead than it has since we commenced driving in this direction. In the 40 west the south copper lode is 3 ft. wide, of spar, capel, and spots of ore—a promising lode. The dialling of this level showing we are not yet far enough north to meet with what has been before named the south copper lode, we have again commenced driving north. The engine is working satisfactorily.

**EAST GUNNIS LAKE AND SOUTH BEDFORD.**—J. Phillips, Dec. 4: We have holed the 45, east of incline-shaft, with No. 3 winze. We have taken down more of the lode in the 35, and find it still worth 4 tons of good ore per fm. There is no other alteration to notice.

**EAST ROSEWARNE.**—J. James, Nov. 29: There has been no lode taken down in Hallett's shaft since last reported. In the 55 east the lode is from 6 to 8 in. wide, producing stones of ore. The slope over this level is worth 121. per fm. In the 55 west the lode is 1 ft. wide, worth 250. per fm.; we must conclude that this lode will vary in width and value, but there is every indication of a good run of ore ground before us. The slope over this level is worth 207. per fm. In the 43 winze, which is down about 5 fms., and 4 fms. beyond the 55 east, the lode has greatly improved, now about 1 foot wide, worth 101. per fm. The 43, east of cross-cut, on the south lode, has a kindly appearance; lode 15 in. wide, producing stones of mudi and copper ore. I think there is a good prospect of the lode improving as we approach the elvan course.

**EAST TREKERRY.**—J. Nanorow, Nov. 29: Both cross-cuts are being pushed on as fast as possible, but without any material alteration in either, except that the water has increased in the 55. In the 40 west the lode is in an unsettled state, but yields a little ore, and we expect it to improve as it gets out of the elvan into the killas, as was the case in the eastern end. The 40 east is improving; the lode which had fallen off is larger, and yields good stones of ore, and we expect a further improvement shortly.

**EAST WHEAL FALMOUTH.**—W. Hancock, Dec. 2: There is no change to notice in the underground department since my report for the general meeting. We have suspended the driving of the adit level east for the present, and have set the bottom level, west of shaft, to three men and three boys, at 31. per fm., stented 3 fms. We have also set the six summen and three labourers a bargain to cut shaft pit and barrow-road at the 15, or bottom level, for 111. 10s., and as soon as the latter is completed the said men will commence sinking for bearer and cistern, when no time will be lost in sinking the shaft 12 fathoms below its present bottom. We shall not be in a position to drive the bottom level east until the pit is completed. Two cart loads of rough jack will be sent to Devon on tomorrow (if I can get carts), and I hope it will turn out satisfactory.

**EAST WHEAL GREENVILL.**—G. R. Odgers, Wm. Bennett, Dec. 1: The engine-shaft to sink below the 55, at 307. per fm.; lode 3 ft. wide, of mudi, ore, and tin, embedded in chlorite, quartz, and peach, presenting a strong and masterly appearance. The 55 east, to four men, at 51. per fm.; lode 18 in. wide, yielding a little ore and tin. The 55 west, to six men, at 61. per fm.; where the lode is composed of precisely the same characteristics as it did in the 45, before meeting with the bunch of tin. The 45 east, to four men, at 61. per fm.; lode 18 in. wide, producing saving work for tin. The 45 cross-cut south, to six men, at 51. 10s. per fm.; from the underlie of the lode as seen at the surface, we ought to have met it ere this, but the end is letting on much water, and which is very strong; therefore we think we have met it. The rise above the 45, by two men, at 41. per fm.; lode worth 61. per fathom. The winze below the 45 west, by four men, at 61. per fm.; lode worth 101. The 45 west, to four men, at 51. 10s. per fm.; lode worth 61. per fm. Two slopes above the 45 west, by six men, at 35s. per fm.; lode worth 51. and 101. per fm. A slope above the 45 east, by four men, at 27. 5s. per fm.; lode worth 61. per fm. We are getting on very well with our tin.

**G. R. Odgers, William Bennett, December 3:** We beg to inform you we are glad to say that this morning we have picked into the lode at the 45 cross-cut south, where we had good spots of yellow ore, with excellent work for tin; so far as we can see it is a kindly lode, but shall not be able to state its size or value for a day or two. It is gratifying to find such good work for tin in it.

**Telegram.** Dec. 3: The new lode is worth 101. per fathom for tin, and looking very promising.

**EAST WHEAL MARTHA.**—J. Richards, Dec. 4: We continue to drive by the side of the lode in the adit level, east of the engine-shaft, for more speedy progress. The lode when cut into last was of large size, composed of gossan, quartz, and capel, of the very finest description, plainly indicating a course of ore below.

**EAST WHEAL RUSSELL.**—J. Goldworthy, Dec. 3: There is no change to report on throughout the mine since the report for the meeting. The progress throughout the several bargains is favourable.

**EAST WHEAL TOLGUS.**—Dec. 3: Redruth Consols Lode: At John's shaft, sinking below the 82, the lode has not been taken down since last reported. We have intersected another small branch in the 82 cross-cut north, about 2 in. wide, spar dropping towards the lode. The lode in the 84 east is 15 in. wide, composed of spar, peach, and mudi—ground easy. The lode in the adit level, east of new shaft, is 1 ft. wide, composed of spar and mudi. The ground in the adit cross-cut, south of new shaft, is moderately easy, and the end letting out a quantity of water. The lode in the old well is 2 1/2 ft. wide, composed of gossan, flookan, pryan, spar, and mudi. This lode must be seen at a deeper level, and if the water continues to increase as it has in the past week we shall recommend the driving of a cross-cut at the 34, to intersect it. We cannot say what distance we shall have to drive, but will ascertain in a day or two.

**GAWTON.**—Geo. Rowe, Nov. 29: We still continue to open on the lode in the back and side of the 35, both east and west, where it is improving, and producing better quality ore, to the amount of from 6 to 8 tons per fm. There is no change in the appearance of the lode in the 35 west during the week. We weighed off yesterday 96 tons 19 cwt. 2 qrs. of copper ore.

**GOGINAN.**—Dec. 2: The four lodes in the 100 yield from 9 to 14 cwt. of lead ore per fm. The lode over the 60 produces about 13 cwt.; the pitch over the 12, 8 cwt.; the lode over the 26 produces 9 cwt. per fm. The lode in the 80 yields pretty good saving work.

**GREAT CARADON.**—F. C. Harter, Dec. 3: In my report for the last meeting, dated Aug. 26, I informed you we were then just passing through a hard floor of ground, which we found rather more than 4 fms. thick. Since then I am glad to inform you the ground has been more easy for exploring, and that the men have made favourable progress with sinking of the shaft below the 40; we are now 19 fms. 4 ft. below the 40—sinking by nine men, leaving only 2 ft. to reach the required depth for cross-cutting from said shaft; this I need scarcely say will be accomplished, when no time will be lost in cutting pit at this point, and the shaft divided from the 40 to bottom. After this we must place a full party of men in the cross-cut north, and extend it away to the boundary with all possible dispatch, it being not only my opinion, but that of many others, that some of the East Consols lode is to be found in this piece of ground. We shall also drive south to intersect the lode passed through in the upper level. No change whatever will be required in the pitwork for the present. The engine, &c., are all in excellent condition.

**GREAT NORTH DOWNS.**—T. Trelease, Nov. 29: We have commenced sinking the engine-shaft below the 47, by 12 men, and hope to intersect Vivian's lode shortly, where an improvement may be expected from the appearance of it in the 47. Pendares lode in the 40, west of Hugh's shaft, is 2 1/2 ft. wide, with stones of copper ore. Job's shaft, below the 40, on New Brian's lode, is still filled with rubbish, and the clearing and forcing of this part of the mine is rather slow; we hope soon to meet with a clear shaft, when we should go on with more speed. This lode in the 20, driving east of Gribble's shaft, is 1 ft. wide, producing good stones of ore. Coal-yard lode, in the winze sinking below this level, is 2 ft. wide, unproductive. This lode is not yet intersected in the cross-cut, south of Bawden's shaft. We have completed the skip-road in Jenkin's shaft, and shall commence to draw from the same in the early part of next week. We sold our tinstuff on Thursday last, it realised 1371. 3s.

**GREAT RETALLACK.**—Wm. H. Reynolds, Dec. 2: The lode in the shaft contains some good copper ore, and is throughout more or less stained with copper, especially on the north side, where the lode is softer, and into which we have to-day commenced cutting; it contains a good deal of flookan and white iron, with which the copper is associated, and I think the character of the lode greatly changed for the better. The 40, west of engine-shaft, looks better for blende, and the pitches are yielding fair quantities of ore, and more free from water than formerly. In my last report I under-estimated the blende raising this month; it will be from 90 to 100 tons of the same quality as the last sold, and I hope to have a parcel of seconds to sample in a few days. We shall pay costs from sale of blende, estimating the price according to that of the sale just effected, and the prospects in depth were never so good as now. The Peru lode, in the winze below the 30, is 3 in. wide, and yielding some rich silver ore.

**GREAT SOUTH TOLGUS.**—John Daw, Dec. 3: At Lyle's shaft, sinking below the 140, the lode is 8 feet wide, worth 1001. per fathom for tin. We have commenced to drive the cross-cut, on the tin lode, in the 140; we are leaving it standing to the south, and shall take it in a few days.

**GREAT TREGONE CONSOLS.**—W. Richards, Dec. 4: The lode in the 90, east of Hobler's shaft, is 4 1/2 feet wide, containing compact and friable quartz, flookan, a great deal of mudi, and a little rich yellow copper ore, but not enough of the latter to value; it is a very promising lode. The lode in the 92, west of Hobler's shaft, is 4 feet wide, composed of friable quartz, oxide of iron, mudi, flookan, and some rich yellow copper ore. We anticipate an early improvement here.

**GREAT WHEAL BADDER.**—J. Hampton, J. Jenkin, Dec. 1: We have driven west a few feet on the lead lode at Hill Brothers shaft, and find it in every respect equal to the existing lode; it is composed of quartz, white iron, jack, mudi, and stones of silver-lead ore. Water is issuing freely, and with force from the lode, which we have every reason to believe will be found good and profitable in the elvan; indeed, we see no chance against it. We are making arrangements to sink Hill Brothers shaft about 13 fathoms deeper, which will be sufficient to take the lode in the elvan, and doubtless drain the mine to bottom. The tin lode in the 10 varies in size from 2 to 3 ft. wide, carrying a very regular north wall; it is altogether of the most promising description, especially 10 fms. only below the surface. The two sales of tin in the stone from this place is a sufficient answer as to its value, and that will be more apparent when we tell you that unless the quality is better than is necessary to pay for returning in the mine, no tin buyer will purchase it in the stone, the same as if coming by an underground water, the water being quick, however, and having to keep the same by a horse-wheel, we have suspended it for the winter, but it will be our interest to resume it again in summer. At Buckley's shaft we are getting in a good position; here we have a dry mine to below the 20 several fathoms even at this season of the year; at that level and the 12 above we have commenced operations. We have lately sold a pile of tinstuff in the stone, raised by the tributers from below the 20, and it is all whole ground for hundreds of fathoms in length east and on the line of this lode. We may remark that at no great distance from the tin in the 12 there is a counter lode which made a good deposit of tin in the adjoining mine, and there can be no doubt whatever but such will be the case here, the average quality of the lode being still better than that sold from the 10 in the eastern valley. Having, therefore, satisfied ourselves beyond doubt as to the propriety of erecting a steam stamp to work this lode with spirit, we beg to recommend that steps be taken forthwith to accomplish this desirable object, as we fully believe that in a reasonable time we shall be paying the whole cost of the mine, if we are in a position to return the tinstuff ourselves, and not give away a good portion of the profit by selling the ore in the stone. We have a good engine-house already built on the mine, which is every way adapted for our purpose. We have made enquiries about an engine stamp, &c., and the probability is that the cost will not be much, if anything, above 10001.; and we fully believe that in six months or so the work will be completed, and we shall be selling from 3 to 4 tons of tin per month, and, of course, go on to increase as the mine is opened out. The tin, too, is of a superior quality.

**GREAT WHEAL BUSY UNITED.**—T. Trelease, J. Petherick, E. Richards, R. Giles, W. Trelease, Dec. 2: We have taken down the lode in the east end of Harvey's engine-shaft; it is now 5 ft. wide, worth 201. per fm. The lode at Offord's shaft is still small and unproductive. In the 120, driving east of Offord's shaft, the lode is about 20 inches wide, producing a little tin, but not to value. The lode in the winze sinking below the 120, east of Offord's shaft, is about 2 1/2 ft. wide, worth for tin 301. per fm.; we are now obliged to suspend this lode, as it is an immense mass of water, and the lode in the 120 will soon drain it, so that we may again resume the sinking. In the 110, driving east of Offord's shaft, the lode is small and disordered; the lode in this level, driving east of Levett's winze, is 18 in. wide, worth 101. per fm. In Ham's winze, sinking below the 100, east of Offord's, the lode is from 7 to 8 feet wide, worth from 601. to 701. per fm. We have communicated the 100 east of Coleman's winze with the 100 west of Mathew's shaft. In the 100, driving east of Mathew's shaft, the lode is improving, now from 4 to 5 feet wide, worth for copper and tin 201. per fm. In Bawden's winze, sinking below the 90, east of Mathew's, the lode is large, containing spots of copper and lead, but not to value. The lode in the 90, east of the same shaft, is still large and unproductive.—Boscombe's Lode: The lode in the 70, west of engine-shaft, is much the same as reported last week, worth 101. per fm. We have commenced to rise against Killas shaft from the back of this level (70); the lode is 2 ft. wide, producing stones of ore. At Kitelee's shaft, sinking below the 60; the lode is 18 in. wide, worth 41. per fathom. The lode at Hunter's shaft, sinking below the 60, is 1 ft. wide, spotted with copper ore; it appears to be changing, and the water increasing. In the 60, driving west of this shaft, the lode is large and unproductive. The lode in the 50, driving west of the same shaft, is worth 301. per fm. for copper. Copper ore sold, 13841. 1s. 6d., and tin, 12541. 0s. 6d., to 101. 26881. for the month. Other things without change to notice.

**GREAT WHEAL FORTUNE.**—T. Miners, T. George, Dec. 3: Old Mine: In Harvey's engine-shaft the ground in the cross-cut driving north, at the 95 fm. level, continues favourable. The rise in the back of this level, south of shaft, on the branches, is worth 91. per fm.; this rise will be communicated with the 85 in about a month. The 85 fm. level, driving east, is worth 101. per fm. The 70 fm. level, driving east, is worth 91. per fm. The 60 fm. level, driving east, is worth 101. per fm. The 50 fm. level, driving east, is worth 101. per fm. The 40 fm. level, driving east, is worth 121. per fm. The 30 fm. level, driving east, is worth 81. per fathom. The 20 fm. level, driving east, is worth 101. per fm.—North Lode: The lode in the 50 fm. level, driving east of Blue Barrow shaft, is worth 81. per fm.—Carmarthen: The engine-shaft is being sunk below the 90 fm. level. The lode in the 90 fm. level, driving east, is 4 feet wide, composed of peach, pryan, mudi, and tin. The lode in the topes in the back of the 75 fm. level is worth 1001. per fm. The topes in the back of the 68, east of shaft, are worth 401. per fm. The lode in the 36 fm. level, driving west of Croche's, is 4 ft. wide, very kindly in appearance, and producing a little tin. The lode in Hoskins's flat-road shaft, sinking below the 78, is worth for its length (12 feet), 181. per fm. The lode in the 78 fm. level, driving east, is 5 feet wide—saving work. The lode in the 68 fathom level, driving east, is worth 81. per fathom. The lode in the topes in the back of this level, west of shaft, is worth 121. per fm. The lode in the 48 fm. level, driving east of eastern shaft, is worth 61. per fathom. The lode in the 18 fm. level, driving east, is worth 101. per fm. No change in the tribute department since last reported. On the 15th of last month we sold 25 tons 2 cwt. 3 qrs. 25 lbs. block tin, which realised 18701. 11s., and have now ready for the market 25 tons. All the machinery continues to work well.

**GREAT WHEAL MARTHA.**—G. Richards, Dec. 4: We have completed cutting pit at the 64, and are preparing to drop our 14-inch lift previous to cutting the lode at that point. In No. 1 cross-cut, in the 62, we have met with the south part of the lode, but are not sufficiently into it to judge of its size or value. The lode in the 52 west is still holding good, worth 6 tons of ore per fm. The winze sinking below the 40 west is improved since last week, and is now producing 4 tons of average quality ore per fathom. We consider this to be the same shaft of ore we lately met with in the western end of the 52; it is evidently improving as it goes down. When communicated, this winze will open up some valuable tribute ground, as well as ventilate the western part of the mine. The topes in the 40, east of the shaft, are much the same as last week. The lode in the 20 west is slightly improved since last week, producing stones of ore and mudi—a very kindly lode. The winze in the 10 west is producing about 5 tons of good quality ore per fm. There is little or no change in our tribute department since last week. All the machinery on the mine is in first-rate working order.

**GRETTAN.**—J. Kemp, Dec. 4: There is no alteration since my last, except that from the bottom of winze in the 84 the men have been driving on the course of the lode, which is looking very promising indeed, and is yielding some good work. The topes over the 84 are yielding as before.

**GUNNIS LAKE.**—N. Seccombe, Dec. 2: The lode in the end, driving east in the deep adit level, continues full 3 feet wide, composed chiefly of quartz of the best description, thickly interspersed with copper ore; this lode, judging from its present appearance, will undoubtedly be a good productive lode for copper at a deeper level, and below the base of the hill—at the same time, there are the strongest indications to assure us that the lode above the adit level, between it and the surface, will be a good paying lode for tin. In opening the ground for tackle-pit, previous to sinking the shaft below the 10, a good branch of rich ore has been discovered, producing full 1 ton per fathom, causing the piece of ground between the north and south lodes, and evidently running into the north one, which is about 3 fathoms distant from the south lode; at their junction a good deposit of ore may reasonably be expected. The rising above the adit, and sinking the shaft below the surface, is going on satisfactorily.

**GURLEYN.**—John Curtis, W. W. Martin, J. Ross, Dec. 3: The shaftmen have completed the lift in the 80, in Wheal Fox, are now preparing to sink the flat-road shaft to the 40, which we hope to commence next week. This operation has accessarily

caused a temporary suspension of the bottom levels in this part of the mine. All parties are working on any important change.

**HARWOOD.**—J. Race, Dec. 2: There is no material alteration in the mine since last. The weather is now favourable for dressing, and we shall have 24 tons of ready-made copper ore, and also preparing a shed for the dressers.

**HAWKMOOR.**—J. Richards, Dec. 2: The lode in the 50, west of the eastern engine-shaft, is 1 ft. wide, composed of capel, quartz, and spots of mudi. In the 30, west of Graham's shaft, the lode is 1 1/2 ft. wide, composed principally of capel. We sampled Friday last 24 tons of copper ore.—West Hawkmoor: No. 3 lode in the adit level, composed of capel, quartz, peach, and saving work for tin ore.—No. 4 lode in the adit level, composed of capel, quartz, peach, and saving work for tin ore.

**HERDSFOOT.**—T. Trevillion, Dec. 3: The ground seems more promising for lead in the 137, and also becoming wet, which indicates our getting into the lode. The two slopes working in the back of this level yield 15 cwt. of lead per fm. The lode in the 117 is 2 ft. wide, and is worth for lead about 9 cwt. per fm. There are four slopes working in the back of this level, yielding on the average 10 cwt. of lead per fm. The lode in the 106 is at this time poor, being interrupted with a slide. There are four slopes working in the back of this level, yielding on the average about 9 cwt. of lead per fm. The lode in the 82 is 3 ft. wide, and will yield 20 cwt. of lead per fm. The lode in the 12, east of the 82, is 2 ft. wide, and worth 8 cwt. of lead per fm. We have no slopes working in the 82 or 10; we intend to sink in this direction for some time to come.

**HOLMBUSH.**—R. Pryor, T. Woolcock, J. Borne, Dec. 1: In the 175, east of the lode is yielding good stones of copper ore. We have not yet intersected the lode in the 160, west of shaft, is opening up tribute ground. The winze, sinking below the 160, is looking much the same as when last reported, worth 201. per fm. In the topes in the back of the 160 the lode is worth 201. per fm. In the adit level, driving east of Huel Down shaft, the lode has a promising appearance, and is yielding work freely in bottom of the level. Our copper ore weighed off last Friday 21 tons 6 cwt.; amount with carriage, 14691. 8s. 1d. We have on the mine 10 tons of copper lead, and about 20 tons of seconds and 100 tons of mudi.

**KEY OF BRAY.**—S. James, Nov. 29: The lode in the 55 east is 4 ft. wide, composed of quartz, mudi, and stones of ore—a strong, kindly lode, the surface of which is very uneven, and still looking very promising. There has not been any lode taken down in the 55 for some time past; the men are all working well. There is no change to notice in the eastern mine since last reported. The ground in the 70 cross-cut is still of a mineralised character. We have weighed off September and October ore on Nov. 2, which was 151 tons 1 cwt.

**KESWICK.**—Nov. 29: The vein in the end of the adit level looks kindly, and spotted with lead; the ground generally is stronger, and is not unfavourable for lead bearing. The rise (Jacob's) over adit is in the friable quartz, intermixed with blende and lumps of galena, worth about 10 cwt. per fm. We are driving a drift between the adit and the 20, where we have a very fine vein, 3 ft. wide, of friable quartz, but without lead at present. The ground is very easy, and is set to drive at 25s. per fm. The 30, north end, is a little more favourable for lead; the vein is more regular and steady both as regards its bearing and underlying; the ground is rather easier. The 40, north end, is in very close ground; the vein is still very unkindly in its nature. The lode in the 41, worth about 8 cwt. of lead per fm. In the 50, north end (west vein) the vein is about 3 ft. wide, with two good walls; it is, if anything, but too loose bearing at present, and the quartz is mixed with a black gossan. We have driven during the last fortnight, and I have set the end-to-day at 30s. per fm. We have good ground in the rise near the end, and have risen 3 ft. during the week. Both the end and rise are without lead at present. The slope (Harrison's) over the 50 is worth through to the 40. The end of the 50 south is still hard and unkindly; the vein is strong, composed of flinty quartz, spotted with lead. At Old Brandley we have cut a little of the eastern branch of the vein; it is somewhat stronger than when we saw it in the last cross-cut, but it is still very unkindly in its nature. The wall carrying the dark, named in my last, will join the vein in about 1 fathom further north, and I will see the effect of the junction, but will, by your leave, put the cross-cut 2 fms. further.

**LADY BERTHA.**—Capt. Harper and Metherell, Nov. 29: To-day was our day off, and setting for December, which passed off well, particulars of which will be forwarded you. In the 53 east the lode is 2 1/2 feet wide, composed of peach, mudi, and small spots of tin. The lode in the 41 east is 2 feet wide, composed of quartz, mudi, and ore, worth about 1 ton per fathom. We have this day set a winze to sink below the bottom of this level (41) by six men; in our next report we shall give particulars of the lode. In the 30 east we have no change to communicate; the lode which was taken down in the 30 east was worth 6 tons, or 181. per fm. We are rising by the side of the lode. In the slope in the bottom of the 20 east, set to rise, the lode is 3 feet wide, composed of quartz, mudi, and ore, worth of the latter 2 tons, or 61. per fm.; and in the western slope the lode is also about 3 feet wide, composed of ore and mudi, worth of the former 6 tons, or 181. per fathom. No change to notice in the tribute department. We sampled yesterday (computed) 61 tons. The ground in the cross-cut driving north at the new eastern shaft is favourable, carrying small branches of quartz, intermixed with spots of lead and copper ore.

**LADY BERTHA (Special Report).**—Geo. Rowe, Nov. 26: I think the present prospects of this mine are in a state of improvement, and deserve looking after. The lode in the 40 east has been driven on a long distance; in fact, poor throughout the driving, but this is certainly in a state of improvement; the lode is 2 ft. wide, and a good leader of ore nearly 1 ft. wide in the bottom and half-way up the end, worth 1 ton per fm., and rising as the end is advancing. The lode in the 20 east may be a middling lode here in a short distance further driving. The 30 east end is driven about 2 fms. from a cross-course, and the lode taken down about 9 ft., where it is about 18 in. wide, all ore and mudi, or nearly so, worth about 181. per fm. This is the most eastern point below the 10, and I think is a very interesting one. It is very possible that a new and good shoot of ore ground may be found to continue from this small cross-course up to the large cross-course, which is at this level about 30 fms. ahead. The lode in the slope in the bottom of the 20,



below the 62, to two men, at 271. per fathom; 9 fms. certain contract, and to carry the shaft 12 ft. long and 6 ft. wide—lode 2 ft. wide, worth 251. per fathom for the length of the shaft. The 62 east is set to drive by six men, at 101. per fathom; lode 1½ ft. wide, worth 151. per fathom; No. 1 stopes, in back of this level, are worth 201. per fathom; stopping by four men, at 41. per fathom. No. 2 stopes, in back of the same level, are worth 161. per fathom; stopping by four men, at 41. The west of the 62 east is set to four men, at 81. per fathom; lode 1½ ft. wide, worth 91. The 62 east is set to six men, at 111. per fathom; lode 1½ ft. wide, worth 81. per fathom, and is likely to improve. The 62 west is set to two men, at 61. 10s. per fathom; lode 2 ft. wide, worth 161. No. 1 stopes, behind this end, are worth 161. per fathom; stopping by four men, at 161. No. 2 stopes, in back of the same level, are worth 101. per fathom; stopping by four men, at 51. No. 3 stopes, in back of the same level, are worth 61. per fathom; stopping by two men, at 41. The 63 east is being driven west of engine-shaft, at 121. per fathom; four men, lode 3 ft. wide, worth 101. per fathom; the 45 is set to drive west of Sleeman's shaft, to four men, at 61. per fathom; lode 3 ft. wide, and poor. The 45 is set to drive of Bal Dees shaft, to four men, at 71; lode 2 ft. wide, worth 81. per fathom. The 45, west of the same shaft, is set to six men, at 301. per fathom; lode 5 ft. wide, worth 351. The 35, east of same shaft, is set to drive by two men, at 51. per fathom; lode 3 ft. wide, worth 61. Close behind this end a rise is set to eight men, at 61. per fathom; lode 3 ft. wide, worth 71. per fathom. By rising 3 fms. more we shall cut down the water now lying in the bottom of Bal Dees higher shaft; in this shaft the lode is 3 ft. wide, worth 201. per fathom, and we calculate to be able to open up the 45, to 16 fms. The 201. east of the same shaft, in the 19, the lode is 2 ft. wide, worth 161. per fathom; driving by four men, at 41. The lode in the 90, west of Hill's shaft, is 2 ft. wide, worth 121. per fathom; this end is suspended while the men are putting up a rise to meet the winze sinking in the bottom of the 70; set to six men, at 71. per fathom. The lode in the winze in the 70, west of Hill's, is 2 ft. wide, worth 111. per fathom; set to sink by six men, at 121. In the 70, west of Hill's, a cross-cut has been driven south, and intersected a good branch of tin, which is now set at 10s. in 11. We have now commenced driving another cross-cut to cut the same branch 7 fathoms further west; we look upon this discovery as being important, and as we have reason to expect, it will enhance this part of the mine, and judging from the nature of the lode and ground, we believe our returns from this part of the mine will soon be considerably increased. We have now plenty of stamping power, and our machinery is in good working order. We have 22 pitches, varying from 5s. to 13s. 4d. in 11.

**WENTNOR (Pantana).—J. Kemp, Dec. 4:** There is no alteration in the lode since last report; it still carries the stamp of blende and lead ores, and I am in hopes it will lead to a discovery of importance. We have not reached the Lord Hill cross lode yet.

**WEST BASSET.—W. Roberts, Nov. 3:** The 114, driving east on the south part, are touching the 115, and are producing 2 cwts. of tin, or near that; the west tin lode is 1½ ft. wide, producing good stones of ore. Other parts are much the same as reported for the meeting, Nov. 26.

**WEST BEAM.—W. Hosking, Dec. 4:** Parry's shaft is completed to the 45 below adit; we shall now commence to fix the skiproad in the same, and expect to have it completed so as to get the machine to draw from this shaft by the end of next week. I am unable to say anything more at present about the value of the lode recently discovered in the bottom of Hobson's engine-shaft, as we have not taken any down during the past week, but shall do so in a few days, when I will advise you again; we are driving east and west of the 65, and the 65, in the end, the tribute pitch 4s. is set to the mine continue to yield very well. In our dressing department we are processing very satisfactorily, and hope to go to market with another parcel of tin in about three weeks from this time.

**WEST CARADON.—F. Pryor, W. Johns, Nov. 27:** At Pryor's shaft the lode is changing, and producing a little ore. This shaft will be down to the 30, so as to enable us to drive east and west in about one month. Our ore realised to-day, with carriage, 31771. In the 92 cross-cut we have a beautiful channel of ground. The same is said of the 17 cross-cut. Our levels, on the whole, are poor, but chances great.

**WEST CROSS.—G. Reynolds, Dec. 4:** The 65, in the end, the tribute pitch 4s. is set to the ground is rather hard to drive, and the lode not so good; but, judging from the level above, it will improve shortly. In the winze sinking below the 40 the lode is larger, but not worth quite so much for copper; the lode is now 5 ft. wide, of a very promising, composed of beautiful quartz, pryan, and yellow copper ore.

**WEST PAR CONSOLS.—W. Woolcock, Dec. 4:** We have effected a communication between the 55 and 65, which has well ventilated both of these levels, and resumed the driving of the 65 ends east of Dawkes's shaft; the lode is small, having made an splice, the eastern part of which is setting out a large quantity of water. The copper runs in the lode, in the 65, at 251. per fathom; the 65, in the end, the tribute pitch 4s. is set to the mine, and is averaging 2 cwts. of tin to the 100 sacks. The lode in the 45 rise is 2 ft. wide, and yields 3 cwts. of tin to the 100 sacks—a very promising lode indeed. We are getting on with cutting the 30 pit as fast as possible, and hope to complete it in another week; we have been prevented from doing this so speedily as I could wish in consequence of having to haul the tributaries' work two or three days in the week, so that the men cannot work in the open shaft while this is being done. The tribute pitches are without much alteration since last reported on. The machinery is in good order throughout the mine.

**WEST PROSE.—G. Reynolds, Dec. 4:** The engine-shaft is sunk 10 fms. below the 20, and the ground is still easy for sinking or driving. The lode in the shaft is about 2 ft. wide, producing stones of ore, with occasional spots of tin. No. 3 lode in the end is about 1½ ft. wide, but poor for mineral. The cross-cut is still in good ground for driving, and water issuing, but we have cut no lode since our last report.

**WHEAL AGAR.—W. Roberts, Dec. 2:** In the 100 cross-cut south the ground continues hard and wet for driving. The winze under the 90 is suspended, in consequence of having too much water to draw. In the 90 west the lode is 1 foot wide, unproductive. In the winze sinking under the 80 the lode is 2 ft. wide, producing 1 ton of ore per fm. In the 80 west, the lode is 2 ft. wide, producing 1 ton of ore per fm. The pitches are good ore. Other parts are much the same as last reported.

**WHEAL CREHOB.—Capt. Gifford, Dec. 4:** At Cock's engine-shaft the lode is 2½ ft. wide, of a very promising appearance, and yielding saving work for dressing. The shaft-men are now engaged in fixing the standing-lift from the 60 to the 72, which we hope to complete by next Tuesday. In the 72, east of shaft, the lode is 3 ft. wide, composed of capel, quartz, and munda, and good stones of copper ore. No alteration in the tribute department. We have commenced dressing for the next sampling. The parcel weighed on the 20th of Nov. 1890, was 100 lbs. 10 oz.

**WHEAL EDWY.—Geo. Rowe, Nov. 29:** We are now busily engaged in sending down the new 14-in. lift at the 92, which we hope to complete in a few days. There is no particular change to notice in the different points of operations since reported on at the last general meeting. We weighed off yesterday our last two months' samplings of ore—188 tons.

**WHEAL GRENVILLE.—G. R. Odgers, W. Bennetts, Dec. 1:** The 120 to drive west, below the 110 in the first possible stage. The 120, east, by four men, at 51. 10s. per fm. lode 18 in. wide, producing 1 ton of ore per fm. The rise above the 100 pit, on the south part, by four men, at 101. per fm.; lode worth 1 ton per fm. The men are engaged stripping down the north side of the caunter at the 100, because we think the main part of the lode will be found on the north side. The 90 west, to four men, at 61. per fm.; lode from 18 to 20 in. wide, and yielding from 1 to 1½ ton per fm.—a kindly lode. The 80 west, by four men, at 61. per fm.; lode worth 2 tons of ore per fm. The 66 west, to six men, at 71. per fathom; here the lode is looking very much better than it did at the 80, immediately under, and which we are pushing on with vigour.—New Lode: The winze sinking below the 100, by 1½ ft. wide, worth 101. per fm. The winze above 2½ ft. wide, worth 111. per fm. The 100 pit, on the south part, by four men, at 101. per fm.; lode large, worth 151. to 201. per fm. The pitches are set at their usual tributes.

**WHEAL HARRIETT.—S. Williams, Nov. 29:** The lode in the 115 end is of a kindly appearance, nothing to value. The lode in the winze below the 100 is worth for length of winze (3 ft. long) 1001. per fm. The stop below the 100, east from west winze, is worth 201. per fm. Alexander's lode, in the shaft below the adit level, is worth 161. per fathom. In the deep adit east end we are cross-cutting to the south part of the lode; I think this ore shall reach the south part of the lode. The winze and stop below the adit level is worth 81. per fm. The stop above the adit level is worth 101. per fm. The deep adit cross-cut, north of Alexander's shaft, is progressing favourably. In this cross-cut, 25 fms. north of Alexander's lode, we have cut a lode, and this last week we have driven west on its course, which is producing good stones of black and grey ore. I consider this to be a productive lode.

—S. Williams, Dec. 4: I beg to inform you we have cut the south part of Alexander's lode in the deep adit east end, which is worth for copper ore 81. per fm.; in this last driving on. The lode in the 100 winze is worth full 1001. per fm. Nothing new in the other part of the mine.

**WHEAL KITTY (St. Agnes).—R. Pryor, sen., J. Nicholas, S. Davey, Nov. 29:** Engine-shaft: The lode in the 100, east of this shaft, is still worth 71. per fm., and in the rise in the back of this level 71. per fm. In the 90, east of ditto, the lode is worth 91. per fm., and in the 82 east 81. per fm. No. 1 rise, in back of the 72, is worth 101. per fathom; in No. 2 ditto the lode is small and poor.—Holgate's Shaft: The lode in the 63 cross-cut south is well defined, of a most promising character, and worth 101. per fm.—Pryor's Shaft: Within the last week the lode in the 54, east of cross-cut, is very much improved, and is now worth 161. per fm. The 54, east of cross-cut, is worth 1½ ft. wide, worth 161. per fm. The 54, west of cross-cut, the lode has a better appearance, and is worth 121. per fm. No. 1 rise, in back of this level, is worth 121. per fm., but in No. 2, to the east of cross-cut, the lode is disordered by a gossan, and not to value. The lode in the 34, east of cross-cut, is 2 ft. wide, worth 121. per fm. and this level, west of ditto, is 1½ ft. wide, and worth 101. per fm. The ground in the 24 cross-cut south is highly mineralised, but spare for driving.

**WHEAL MARY ANN.—P. Clymo, H. Hodge, J. Harris, J. Stevens, Dec. 3:** Clymo's shaftmen are now engaged setting a trip lift, at 180. The lode in the 170, north of the 160, is worth 1½ ft. wide, worth 101. per fathom. In the same level, south part, by four men, at 101. per fathom. In the 160 south it is 2½ ft. wide, worth 81. per fathom. In the 170, north of Pollard's shaft, it is 3 feet wide, worth 51. per fm. In the same level south it is 2½ feet wide, worth 71. per fathom. No change to notice in the 160 north since our last report. The stopes and pitches are producing much as usual. We sampled on Nov. 29 a parcel of lead ores (computed), 67 tons, for sale on Saturday next.

**WHEAL NORRIS.—J. Nance, J. Andrews, Nov. 29:** The ground in Crenmore engine-shaft continues favourable for sinking. The 55 driving south, in Crenmore shaft, is set to 17, per fm. There has been no change in the past week requiring a rise in the 15, driving south of said shaft. The sinking of Carter's shaft is progressing as much as usual. The ground in the 25 end, east of Carter's shaft, on the side of No. 4 lode, is much



of No. 3 shaft, is split into branches, each producing copper, but not to value; driving by four men, at 62. per fathom. The lode in the 58, east of No. 3 shaft, is 3 feet wide, producing rich stones of copper ore, but not to value; driving by four men, at 81. per fathom. The lode in the 58 west is worth 357. per fathom for copper ore; driving by four men, at 41. 10s. The lode in the winze below the 58 is 18 in. wide, composed of quartz, mandle, and copper ore, but not to value; sinking at 51. per fathom (sunk 4 fms.). The ground in the new engine-shaft is hard ironstone; sinking by nine men, at 251. per fathom—sunk 29 fathoms from the surface. We sampled on Wednesday last 19 tons of copper ore.

**YARNER.**—R. Barkell, Dec. 3: The air in the 30 east, on north lode, has been bad, and our progress there has been slow; the lode maintains its size and character. The lode in the 40 west, on south lode, is producing stones of ore occasionally, but not enough to value. The 40 east will produce about 2½ tons per fm. The two stops in bottom of the 30 will average 3 tons per fm. each. The shaftmen will finish cutting pit and putting in penthouse this week, when we shall be in order to sink the shaft another lift.

\* With this week's JOURNAL is given a SUPPLEMENTAL SHEET, which contains a Plan of the Devon Great Consols District; On Peat Fuel; Meetings of the Allen, Prosper United, and Tincroft Mining Companies; Foreign Mining Reports; Plans and Particulars of the North Pool Mining District, &c.

\* We shall next week, in a SUPPLEMENTAL SHEET, publish a Paper on the PROGRESS OF MINING ON THE PACIFIC COAST, and several other matters, now necessarily omitted.

### THE ANNUAL REVIEW OF MINING.

BY J. T. WATSON, ESQ., F.R.S.

This valuable epitome of Mining Progress is in course of preparation for 1862, being the Nineteenth Year. Pursers, agents, and others concerned, are requested to forward all their information, with as little delay as possible, either to our office, or to Mr. Watson (Watson and Cuell, St. Michael's-alley), that complaints may not be made of defects or omission.

### The Mining Market; Prices of Metals, Ores, &c.

METAL MARKET—LONDON, Dec. 5, 1862.

Best selected	OFFER.	101	0	—
Tough cake	98	0	—	—
Tile	98	0	—	—
Burra Burra	98	0	—	—
Copado	98	0	—	—
Copper wire	101	0	—	—
ditto tubes	101	0	—	—
Sheeting & bolts	101	0	—	—
Bottoms	110	0	—	—
Old (Exchange)	91	0	—	—

  

IRON.	Per Ton.
Bars, Welsh, in London	6 10 0
ditto, to arrive	6 10 0
Nail rods	7 0 0
Stafford, in London	7 0 0
ditto	7 0 0
Hoops	8 0 0
Sheets, single	9 0 0
Pig, No. 1, in Wales	3 0 0
Refined metal, ditto	4 0 0
Bars, common, ditto	5 10 0
ditto, merchant, in Tees	6 10 0
ditto, railway, in Wales	6 12 0
ditto, Swed. in London	11 15 0
To arrive	11 15 0
Pig, No. 1, in Clyde	2 15 0
ditto, f.o.b. in Tees	2 15 0
ditto, f.o.b. in Tees	2 15 0
Staffordshire Forge Pig	—
Welsh Forge Pig	—

  

LEAD.	Per Ton.
English Pig	21 0 0
ditto sheet	21 15 0
ditto red lead	22 0 0
ditto white	28 10 0
ditto patent shot	23 0 0
Spanish	20 0 0

**REMARKS.**—During the past week the London metal market has remained quiet, nothing of an unusual character having transpired to disturb it, and prices for the most part are unaltered; only a limited amount of business has been transacted for shipment, and orders for home consumption are much fewer of late.

**COPPER.**—English manufactured is without improvement, and sales have been made in the week at 104d.; there is not, however, much to be bought at this figure. In unwrought a steady demand exists for home consumption, but for shipment scarcely any. Foreign very difficult of sale at reduced quotations. Sellers remain quiet, while the easy money market enables them to hold cheaply, but should money become dearer, doubtless a good deal now kept back would be thrown on the market. Burra Burra declined to 98½, 99½; Kapunda, 99½ to 100½; Chili, 87½; Spanish, 88½.

**YELLOW METAL** in fair ordinary request at about 8½d. for braziers sheets, and 8½d. sheeting.

**IRON.**—Railway bars can be considerably fallen off in demand; manufacturers now quote 51. 12s. 6d., delivered f.o.b. in Wales. Merchant bars rather less enquired for, and prices remain as before quoted—61. 10s. to 61. 15s. in London, and 51. at the works. Staffordshire makes in steady request at full prices. Swedish bars are in greater supply, the arrivals of late having been heavy, and prices somewhat easier; sellers of good ordinary specifications still quote 111. 10s. Scotch pigs have not altered during the week; market very quiet—55s. 6d. to 55s. 9d., mixed numbers.

**SPELLER.**—Rather more animation has been visible in the spelter market than for some weeks past, and several parcels have changed hands at about 181., which price is steadily maintained. The stocks on Dec. 1 amounted to 5861 tons, having been augmented by about 1300 tons since Nov. 1. This heavy stock militates against any great advance in price.

**ZINC** in good request at quotations.

**LEAD.**—English pig slow of sale; good ordinary soft quality, 21½; WB, 21½, and business done. Manufactured lead in very limited demand. Spanish pig, 20½.

**TIN.**—More business has been doing in foreign during the week, and the market is steadier in consequence, sales having been effected in Straits at 117½ cash, and 118½ three months prompt. Banca has also improved, and is now firm at 119½ to 119½ 10s.; reported to have advanced to 69 fl. in Holland.

**TIN-PLATES** steady at 22s. 6d. for IC coke. A fair demand exists for shipment to America and the Continent.

**STEEL.**—Swedish keg remains without alteration at 151. 10s. to 161.

**QUICKSILVER** 71. per bottle of 75 lbs.

**GLASGOW, DEC. 1.**—Our pig-iron market has not been subject to any important fluctuations during the past month, the extreme range of prices not having exceeded 1s. 1½d. per ton. Opening quietly at 56s. 3d. cash for mixed numbers warrants, it soon became evident that above that point sellers would predominate, and under it that buyers would prevail; so that although the subsidence of the excitement relative to the question of intervention led to frequent and extensive realisations, a ready market was found for all that was offered without much concession in price being requisite, owing to the confidence still existing in some quarters regarding the stability of our market. In the trade generally we cannot discern much trace of this feeling, and were it not that the question of labour stands prominently forth as one that may be long eventuate in a contest between employer and employed, there would be still less. While on this subject it is worthy of remark that in some of the coal districts of the South the trade is so dull that the colliers have only two days' work in the week, while here they are fully employed, and at good wages. They are now demanding better, with what success remains to be seen. The consumption of iron in this neighbourhood continues on a large scale, the various shipbuilding yards, rolling mills, &c., being fully employed. Amongst the foundries there is less activity, but no absolute dulness. In our exports there is a falling off for the month of 10,409 tons; the returns were, in—Nov., 1862, 15,699; Dec., 1861, 18,344; 43,504 tons.

For the eleven months of this year, the decrease is 38,439 tons. The number of far-nases now in blast is 175, being an increase of seven since our last enumeration. The quantity of iron in storekeepers' yards now amounts to 262,700 tons, "warrants" for which are in circulation to the extent of 298,400 tons. The minimum price for the month was 55s. 7½d.; the maximum, 56s. 9d.; and the average, 56s. 2½d.; against 49s. 3d. in November, 1861. —ANDREW WOODROW AND SON.

**BOSTON, NOV. 17.**—The arrivals of Pictou and Sydney coal continue to be delivered on contract. Anthracite has been in steady demand at \$5.50 c. per ton. We continue to notice a very firm market for pig-iron, with sales of Scotch No. 1 at \$35, and American No. 1 at \$35 to \$37 per ton, cash. Bar-iron is firm, and the sales have been in small lots, but at full prices. In Russia sheet-iron there have been sales of 400 packs, at 15½ c. per pound, cash.

**NEW YORK, NOV. 19.**—The market for domestic coal is firm, with a good demand for home use and the East; the receipts have not been large; sales from yard at \$6.50 c. to \$8. In foreign there is little change of moment; the supply is better; sales of 150 tons of Kirkless Hall Cannel and 1640 tons Welsh steam on private terms; 450 tons Scotch steam at \$6.50 c., and 300 tons West Hartly steam, ex ship, \$6.87½ c., cash. The supply of all kinds of iron is very small, and the market is buoyant, small

sales of Scotch pig at \$52.50 c. to \$53.50 c., cash, but most holders ask more money. American pig is scarce, and prices irregular; small sales are making at \$32 to \$32.50 c., but no contract for future delivery could be made short of \$34 to \$35 per ton. English bars are firm at \$65 to \$67.50 c. for common, and \$76 to \$80 for refined, and English sheet at 5 c. to 6 c. for singles, doubles, and triples. Russia sheet is steady at 17 c. Of English rails, sales of some 300 tons have been made at \$63.

**THE TIN TRADE.**—Mr. N. Breebaart (Goll and Co., Amsterdam), under date Nov. 29, writes:—During the entire course of this month the market has remained in a very depressed state; transactions have been quite insignificant, and the price has undergone a sensible reduction. Business has been confined to some small purchases for actual wants, first at 68½ fls., and, upon the reduction of 4 fls. for English tin, at 68 fls. It was only towards the end of this month that a further concession gave rise to a sale of 500 slabs at 67½ fls., a price at which there are, however, buyers to-day. This fall has not come unexpectedly. The speculative sales, which in the preceding month advanced prices, had no solid foundation, and could not be supported in the presence of the dulness which has prevailed already for such a length of time in all branches of trade.

Stock of Banca tin on warrants on Oct. 31	1862.	1861.	1860.
Deliveries in Nov.	80,935	74,683	81,352
	7,265	12,655	11,888

Stock on warrants Nov. 29 ..... 73,690 ..... 62,028 ..... 69,964  
Stock in the hands of Trading Society, for annual sale, 57,998 ..... 57,250 ..... 61,061  
Certain advances have been received that the large shipments of Straits tin for Europe have ceased; recent accounts have also confirmed the loss of a transport vessel with 16,000 slabs of Banca tin; but as it is evident that the effects of such circumstances can only make themselves felt at a more remote period, they continue to judge the article according to its actual position. And, as at the present moment the position is not more favourable than it was two months ago, there is very little ground to expect any immediate activity, especially at the present season of the year, when it is not likely that the consumption will extend its operations beyond absolute wants. It is, however, also possible that the sales which have latterly taken place at Singapore for China and Japan, and the very high prices which have been realised for those quarters, by preventing shipments to Europe, may have their influence, and may promote, at least for the moment, favourable change. F.S. 500 slabs have just been sold at 68 fls., and it appears that there are still buyers at this price.

A fair average amount of business has been transacted in the MINING SHARE MARKET this week, and, on the whole, prices have been better, and one or two mines which have been unduly depressed, owing to forced sales made to meet differences at the "account" day, have slightly recovered, and in better demand. The mines mostly dealt in have been East Caradon, East Carn Brea, North Crofty, Wheal Seton, South Tolgus, West Caradon, Lady Bertha, Cargoll, Clifford Amalgamated, Central Minera, East Basset, Great South Tolgus, Great Retallack, Marke Valley, North Downs, North Treskerby, South Frances, Wheal Uuy, Tincroft, Wheal Harriett, Wheal Grenville, East Grenville, South Caradon Wheal Hooper, Wheal Crebor, and a few other shares. East Caradon shares have been influenced during the week by large purchases of shares, bought in against the "bears," who could not deliver what they had sold for delivery on the settling-day. On Monday they reached 35½; Tuesday, 36; Wednesday opened, sellers, at 34½ to 35; Thursday, 35½ to 36; Friday, firm at 36½ to 36½. The agents' report states that the mine is again in fork, and the 70 fathom level ends, on the counter lode, are worth 301. per fathom east and west; the 60 east is worth 121. per fathom; the 50 east is worth 201. per fm.; the new lode, in the 60 east, is worth 101. per fm.; the 50 west is worth 51. per fm. The next sampling is expected to be 465 tons. On Wednesday, we understand the mine was inspected by several agents, and among them Captain Daw, of Carn Brea, values the reserves of ore at 60,000l., or 40,000l. less than the agents of the mine; and as the value of the property greatly depends on the reserves—and there is so much difference of opinion existing—we would suggest that two perfectly independent agents be sent to survey and value the ore ground on behalf of the company; this would be but an act of common justice to the resident agents, whose statements are thus impugned by men of high standing; and, as it must be evident to all that, when it may take 12 or 15 months to cut the lode in the next level, returns made at the rate of 5000l. per month out of reserves of 60,000l., and without rich ends in the meantime, is a subject of serious consideration for the shareholders. We have, as we said before, confidently relied upon the agents' valuations and their reports, and we hope that such a means of testing them as we have suggested will show that our confidence, and that of the shareholders, has been not misplaced. The next sampling is to be 465 tons. Marke Valley shares, after suddenly rising from 8½ to 10, for what reason we have not yet learnt, suddenly dropped again, and leave off 8½ to 9½. East Carn Brea, 11½ to 11½; in the 60, west of cross-cut, the lode is worth 2 tons per fm.; the rise in the back of the 60 is worth 1 ton per fm.; the new lode in the 50, west of cross-cut, is worth 2 tons per fm. North Treskerby, 3½ to 3½; at the meeting the accounts showed a profit, charging three months' cost against two months' ore, of 3051. 18s., and a balance in favour of adventurers of 7551. 18s. 5d., out of which a dividend of 1s. 0d. per share, amounting to 4451. 4s., was declared. The ore sold on the 27th ult. amount to 2241. 5s. 7d., out of which a dividend will be declared at the next meeting, in February. The engine-shaft is sunk 4 fms. 3 ft. below the 77; the lode is 3 ft. wide, composed of mandle, peach, and spar, with a little copper ore and tin intermixed—of a promising character. The pitches throughout the mine are reported as producing fair quantities of tin and copper; and the different ends, which are looking better than for some time past, are worth, in the aggregate, 421. per fathom for tin and copper. Alfred Consols, 2s. 6d. to 5s. Cargoll shares have advanced to 34, 36, and a good demand existing. Carn Camborne, 15s. to 17s.; Carn Brea, 60 to 65. Central Minera shares have advanced to 17s. 6d., 22s. 6d., buyers. North Roskear shares have partaken of the dulness of the market, and leave of 36 to 37; the 184 will be commenced west of Pearce's shaft, in a course of ore worth 801. per fm., in five weeks; the sinking of Pearce's shaft below the 184 will be commenced within two months; the lode in the bottom being worth 801. per fm. North Crofty shares have been firmer, and more in demand, leaving off 4½ to 4½; the 170 west is worth 151. per fm., and for tin, from 61. to 81. per fm.; the same level east is producing fine stones of tin, and approaching the long run of rich ground passed through in the 150; the 150 is improving, and about 3 fathoms to drive to get under a valuable run of tin standing in the bottom of the 140; the 120, east of slide, is worth 121. to 141. per fm. East Seton, 9s. to 11s.; the lode in the adit east is 2½ feet wide, composed principally of spar, with occasional good stones of copper ore; this level is approaching the junction of the lode and the elvan course, where an improvement is expected. North Dolcoath, 20s. to 25s.; the engine-shaft is about 10 fathoms under the 47 fathom level; the lode is 8 feet wide, producing good stones of yellow ore, and looks like approaching a good course of ore.

**CLIFFORD AMALGAMATED**, 21½ to 22½; Cook's Kitchen, 27½ to 30; Devon Great Consols, 49s. to 50s.; East Basset, 51 to 53; East Russell, 3½ to 3½; Grambler and St. Aubyn, 13½ to 14½; Great South Tolgus, 6 to 6½; Great Wheal Fortune, 27½ to 30. Kelly Bray shares in request, at 13s. to 15s. Lady Bertha, 27s. to 28s.; New Seton, 140 to 145; Wheal Basset, 82½ to 85; a dividend of 21. per share (1024d.) was declared at the meeting, and a balance of 8741. 13s. 5d. carried over. The profit on the two months' working was 11291. 4s. 6d. The copper part of the mine is not looking so well, but the tin pitches have improved. North Basset, 8 to 3½; North Downs, 2½ to 3; Providence Mines, 38 to 40; Rosewall Hill and Ransom United, 3½ to 3½; South Caradon, 390 to 400; South Frances, 90 to 95; South Tolgus, 40 to 42½. Wheal Margaret, 38 to 40; the dividend at the meeting was 11. per share, and a balance of 4441. 15s. carried over. The profit on the quarter was 6661. 15s. 6d. The late accident seriously affected the returns, but the mine is gradually recovering from its effects, and in about a month the lodes in the different levels will again be in active operation. Stray Park, 42 to 44; Tincroft, 13½ to 13½; Tolvaaden, 3½ to 3½; West Caradon, 29 to 31; West Seton, 285 to 295. Wheal Grenville, 5 to 5½; the 80 west has improved to 2 tons of ore per fm.; a winze on tin lode worth 301. to 401. per fm. East Grenville shares became rather in demand on Wednesday, and rose to 54s., 56s., but they leave off 53s. to 54s. The Wheal Grenville lode has been intersected at the 45 cross-cut, from 18 in. to 2 ft. wide—good work for tin. West Tolgus, 49 to 51; Wheal Buller, 50 to 55; Wheal Edward, 1½ to 1½; Wheal Grylls, 27 to 29. Great Retallack shares have been flatter, and leave off 12s. to 14s. The best parcel of the silver ores, sold to test its value, in bulk, sold at the rate of 1111. 1s. per ton; No. 2, 161. per ton; No. 3, 221. per ton. This is a disappointment as regards the silver, but it is expected the blende will nearly pay the costs of the mine. Wheal Harriett shares became in demand on Friday, and leave off 35s. to 40s. Wheal Ludcott shares have been flat, and more freely offered, at 9½ to 10. Wheal Mary Ann, 15 to 16½; Wheal Crebor, 8s. to 10s.; the mine is improving at the shaft, which is an important point. Wheal Unity, 12s. 6d. to 15s.; the counter lode has been cut into in the 50, with rich ore in it, as the agent reports, and more will be seen of it in a few days. At a special meeting, held on Tuesday, it was resolved to dispose of the shares which have been forfeited from time to time for non-payment of calls, so as to raise extra funds, and make the calls less in future. A large amount has been paid on these shares, and they will be sold by auction on Thursday, with the

last call of 4s. per share paid up. Wheal Polmear, 28 to 30; the lode in the 15 east is reported worth 5 tons of good ore, or 401. per fathom; and 10 fathoms driven through it. Wheal Seton, 167½ to 172½; Wheal Trelawny, 16½ to 17½. Wheal Union, 5½ to 6; in the 20, east of old engine, the lode is worth 1 ton per fm.; the lode in the flat-rod shaft is worth 301. per fm. Wheal Uuy 7½ to 7½.

The prospectus of the Great Devon and Bedford (Colcharton) Copper Mining Company, with a capital of 25,000l., in shares of 21. 10s. each, and on the principle of limited liability, has just been issued, and will be found, together with a plan of the mine, in another column of this day's Journal. The object of the company is to purchase the freehold, and work the mineral property known to exist beneath the Colcharton Estate, which is situated to the south of the Devon Great Consols, and to the north of Wheal Crebor. The estate being freehold there will be no royalties or lord's dues whatever, so that a formidable charge upon the returns will be got rid of; and as taking even the mines immediately surrounding the Great Devon and Bedford, the amount paid for lord's dues has been equal to one-fourth of the dividends paid to the shareholders, the advantage will be manifest. The lord's dues paid by the Devon Great Consols would have been sufficient to pay nearly 1701. per share to the adventurers. The company is to pay 15,000l. for the freehold of 67 acres, and all the minerals beneath it; and so confident are the vendors of success that they have agreed to take up one-third in paid-up shares.

A Cost-book Company, in 1024 shares, upon which a deposit of 11. per share is payable, has just been formed for working Wheal Curtis, which is situated in the parish of Crowan, at a convenient distance from several shipping ports. The sett extends 700 fathoms on the course of the lode, and 400 fathoms from north to south. There are four known lodes in the sett, well defined, and running through a stratum of clay-slate. The lodes are very nearly parallel with those of Wheal Abraham and Crenver, which from forty to fifty years since yielded such vast quantities of copper ores—110,000 tons were raised from one lode alone. The geological formation throughout both mines is precisely the same. It is found by careful estimate that the outside cost of developing the mine cannot exceed 12,000l. The property has been carefully surveyed and favourably reported upon by Capt. Joseph and Nicholas Vivian, of North Roskear and Condarrow; by Capt. Charles, of Dolcoath; and by Capt. J. Delbridge, who was agent on the mine at the former working. The prospectus, which we publish in another column, states that "the promoters offer to the public the 1024 shares, only stipulating that at the first meeting of the shareholders an adequate amount shall be awarded as a compensation for the time employed and expense incurred;" and that the reports of "Capt. J. Vivian and others, who knew the mine in its last working, together with a list of 600 shares, of which 99 are held in Camborne, 127 in Crowan, the parish in which the mine is situated, and 49 in other parts of Cornwall, may be seen at the office of the company."

The Moel Yspri Mine, which was referred to in the very excellent paper read before the British Association by Mr. T. A. Readwin, as yielding "at the rate of 8 ozs. of gold to the ton of galena," is about to be vigorously worked by the East Cambrian Gold Mining Company, which has just been formed on the limited liability principle, with a capital of 50,000l., in shares of 11. each. The profits which may be anticipated from a lode yielding 8 ozs. to the ton can be readily calculated, when it is remembered that Mr. Readwin stated (and in this he is fully borne out by results actually obtained) that "there is no doubt that gold quartz producing from 8 to 10 dwts. per ton will pay large dividends." Provisional arrangements have been made for the purchase of the property, including the existing materials on the mine, for 5000l. cash, and 10,000l. in shares, which are not to be handed over to the vendors until six months after allotment. The vendors are so satisfied with the prospects of the company that they have left the arrangements for payment to the absolute discretion of the directors. Capt. John Parry (the agent referred to in the International Jurors' award of a Prize Medal "for the first successful result in Britain, chiefly due to their agent, John Parry, of the working of a gold-bearing vein") reports that "there is a lode which deserves special notice, as it is a most magnificent one," and considers that "henceforward the mine may be worked at a good profit." The property has also been inspected and favourably reported upon by Mr. Septimus Beardmore, M.E.; Mr. J. H. Clement, F.G.S., F.C.S.; and by Capt. Thomas Faulk, late manager of the Almaden Mines, California. The East Cambrian Mine (Moel Yspri) is bounded by the Prince of Wales and Cambrian Mines, and several of the lodes of both these mines run through it.

The prospectus of the Bristol and South Wales Zinc Smelting Company has just been issued; the undertaking is constituted on the limited liability principle, with a capital of 100,000l., in shares of 101. each. The shares are divided into two classes—7500 A shares entitled to a preferential dividend of 7½ per cent., and 2500 B shares to be issued as fully paid up. The A shares will only be issued, the B shares (and 39,500l. in cash) being applicable to the payment of the consideration for the transfer of the zinc mines, colliery, plant, machinery, and buildings, 14 acres of freehold land, a proved coal field of 138 acres, free of royalty, and for the erection of 20 new smelting-furnaces, including the payment of all preliminary expenses. These B shares are not to participate in any dividend until 7½ per cent. per annum has been first paid on the subscribed capital. The zinc mines are situated, two in Cardiganshire and one in Carmarthenshire, and the colliery and works are near Bristol. Hitherto the manufacturer has chiefly depended on foreign markets, and the Vieille Montagne Zinc Company has returned 25 per cent. of their share capital. The smelting trade of this country, hitherto confined to private enterprise, is well known to have yielded enormous returns.

A limited liability company, with a capital of 12,000l., in shares of 201. each—the Blaencennant Silver-Lead Mining Company—is now in course of formation for working the Blaencennant Mine, at Llanfihangel, about nine miles from Aberystwyth. The property has been carefully inspected and favourably reported upon by Mr. J. H. Hitchins, the consulting mining engineer to the Devon Great Consols, and Capt. Charles Raw, of Pontystwyth; W. Tregoning, of Grogwinion; and H. Francis, of Stryd-fynon Mines; all of whom concur in the opinion that the mine is well worthy of vigorous exploration. There is an ample supply of water for all purposes. The sett is 2½ miles long, and 1½ mile broad, and is held on an agreement for a lease to be granted for twenty-one years at any time before Aug. 12, 1864, at 1-16th royalty, free of all dead rent whatever. The vendors are to receive 5000l. for the transfer of the property to the company,—500l. in cash, and 225 shares, free from liability to calls, but entitled to dividends only to the amount that may from time to time be paid up on the remaining shares; thus evidencing the confidence of the existing proprietors in the soundness of the undertaking.

On the Stock Exchange transactions in Mining Shares scarcely amounted to the usual weekly average. The following quotations were officially recorded in British Mining Shares:—Devon Great Consols, 50s, 50s, 50s; East Caradon, 35½, 35½, 35½, 35½, 35½, 35½; East Wheal Russell, 2½, 3½, 3½; Marke Valley, 8½, 8½, 9; North Wheal Crofty, 4½, 4½; East Clogau, 3½; Great South Tolgus, 6½; Wheal Ludcott, 9½, 9½, 9½, 10; Tincroft, 13½, 13½, 13½; Wheal Mary Ann, 15; Wheal Trelawny, 17. In Colonial Mining Shares the prices were:—Yudanambian, 3½; Dun Mountain, 4; Port Phillip, 1½, 1½; Scottish Australian, 1½; Worthing, 1½; General, 20½. In Foreign Mining Shares the prices were:—Capula, 1½; East del Rey, 1½, 1½, 1½, 1½; St. John del Rey, 62, 60, 59, 59, 59, 59, 59; Monte Aueros, 2½, 2; United Mexican, 3½; Fortuna, 4½, 4.

The closing quotations for shares in new undertakings were:—Union Bank of England and France, 1½; London and Northern Bank, 1½; 1½; prem.; English and Irish Bank, par to 1½; prem.; Oil Wells of Canada Company, 1½; prem.; South African Irrigation and Investment, 1½; prem.; Greenland Company, 1½; prem.; Canadian Oil, 1½; prem.; Queensland Wool, 1½; prem.; Societe Financiere of Egypt, 1½; prem.; and London and Western Bank, 1½; prem. Transactions were also reported in East Cambrian, 1½; prem.; Sovereign, 1½; Nova Scotia Land and Gold, 1½; prem.

**IRISH MINE SHARE MARKET.**—English funds are dull. Consols for cash and account fell from 92½. 10s. to 92½. 5s. The General Stock and Share Market was inanimate, and small reductions took place in almost every description of securities: mining shares alone held their ground well. Those of the Wicklow Copper Mining Company have not only been readily purchased at the highest quotation of last week, 384. per share (51. paid), but holders demand a further advance of at least 10s. per share, and will no doubt obtain it soon. Carysfort shares (20s. paid) were done at par. Connors shares were done at a fractional decline, but still, at a premium of 1½d., are at 22s. 6d. per share (20s. paid). Mining Company



Shares (74 paid) exchanged hands at 19s. 10s., but leave off 19s. 6d., and in request. A few Carbery shares (Gurtavallig) sold at 20s. 6d., were sold at 16s. 3d. General Mining Company (Tipperary) fell from 5s. 15s. (4s. paid) to 5s. 6s., but slightly improved, and brought finally 5s. 7s. 6d. The shareholders of the company held on Monday last their ordinary half-yearly general meeting, Mr. Alderman Carroll in the chair. A *resumé* of the directors' statement was given in last week's Journal. From the reports presented by the directors and the captain of the mines, it would appear that the market has now been established for the sale of their calamine, and that negotiations are being made to increase the production of it, and that the ground wrought in the extraction of calamine, and the opening up of the ground at Silvermines, is about 211 fathoms. In another part of his report the captain states that the 15 fm. level has intersected calamine to the extent of about 18 to 20 fms. in width, without any appearance of the walls of the deposit. Of the discovery of lead referred to at the previous half-yearly meeting of shareholders, the directors say that it will yet take some time before a positive opinion can be ventured upon, but that so far they have every reason to be extremely well satisfied with the appearances presented. A desultory conversation respecting the quantity of ore extracted from the mines each day, with the probable expense and the profits *per ton*, then followed; and, finally, a vote of thanks to the presiding Alderman, closed the meeting.

The following are the Government Returns of the exports of articles identified with mining, the produce and manufacture of Great Britain, for the ten months ending Oct. 31, 1862; and also as compared with the ten months ending Oct. 1861; extracted from the "Accounts relating to Trade and Navigation," published by the Board of Trade:—

DECLARED VALUE FOR THE TEN MONTHS ENDING OCTOBER 31.			
	1861.	1862.	Increase.
Gold and silver	£3,127,630	£3,197,921	£ 70,291
Mineral products	2,851,841	£2,704,830	—
Manufactures	239,483	239,483	—
Other articles	367,496	3,311,809	459,968
<b>Total</b>	<b>£6,585,450</b>	<b>£9,514,043</b>	<b>£2,928,593</b>
Wool and woolen manufactures	£1,042,898	1,388,054	345,156
Other sorts	2,481,985	3,524,833	1,042,848
<b>Total</b>	<b>£3,524,883</b>	<b>£4,912,887</b>	<b>£1,388,004</b>
Iron—Pig	£ 908,438	£1,038,501	130,063
Bar, bolt	1,674,626	1,540,160	—134,466
Railway	2,628,060	2,379,842	—248,218
Wire	180,424	232,343	51,919
Other telegraphic	171,586	246,053	74,467
Cable	885,427	455,847	—429,580
Other	720,570	844,564	123,994
<b>Total</b>	<b>£6,585,450</b>	<b>£8,448,362</b>	<b>£1,862,912</b>
Wrought	1,687,308	1,851,062	163,754
Other	597,399	688,224	90,825
<b>Total</b>	<b>£2,284,707</b>	<b>£2,539,286</b>	<b>£254,579</b>
Other sorts	383,082	430,581	47,499
Plates, sheets	1,202,390	1,637,616	435,226
<b>Total</b>	<b>£2,368,272</b>	<b>£2,708,483</b>	<b>£340,211</b>
Wrought	235,825	1,821,297	1,585,472
Other	137,542	169,987	32,445
<b>Total</b>	<b>£373,367</b>	<b>£1,991,284</b>	<b>£1,617,917</b>
Iron—Pig	359,629	630,914	271,285
Bar, bolt	126,682	485,311	358,629
Railway	298,958	414,825	115,867
Wire	736,246	1,062,465	326,219
Other telegraphic	84,265	78,504	—5,761
<b>Total</b>	<b>£1,565,820</b>	<b>£2,272,019</b>	<b>£706,199</b>
<b>Grand total</b>	<b>£22,131,977</b>	<b>£24,066,199</b>	<b>£1,934,222</b>
Less decrease—Machinery, 224,454; zinc, 446,111			<b>229,657</b>
<b>Total increase</b>			<b>£1,704,565</b>

At the Redruth Ticketing, on Thursday, 3645 tons of ore were sold, reaching 17,806. 6s. The particulars of the sale were:—Average standard, 11s. 11s.; average produce, 6s.; average price per ton, 4s. 17s. 6d.; quantity of fine copper, 228 tons 4 cwt. The following are the particulars:—

Tons.	Standard.	Produce.	Price per ton.	Ore cop.
3819	122 10 0	6 1/2	4 1/2	80 1/2 0
13	122 10 0	6 1/2	4 1/2	80 1/2 0
3041	122 10 0	6 1/2	4 1/2	80 1/2 0
6246	122 10 0	6 1/2	4 1/2	80 1/2 0
3692	122 10 0	6 1/2	4 1/2	80 1/2 0
3845	122 10 0	6 1/2	4 1/2	80 1/2 0

Compared with last week's sale the advance has been, in the standard 1s. 5s., in the price per ton of ore about 1s. 6d. Compared with the corresponding sale of last month the decline has been in the standard nearly 2s., and the price per ton of ore about 2s. 6d.

At the Swansea Ticketing, on Tuesday, 1645 tons of ore were sold, reaching 26,281. 15s. The particulars of the sale were:—Average standard, 9s. 11s.; average produce, 18s.; average price per ton, 15s. 9s.; quantity of fine copper, 306 tons 19 cwt. The following are the particulars of the sale during the past month:—

Tons.	Standard.	Produce.	Price per ton.	Ore cop.
1448	122 10 0	6 1/2	4 1/2	80 1/2 0
1405	122 10 0	6 1/2	4 1/2	80 1/2 0
1448	122 10 0	6 1/2	4 1/2	80 1/2 0

Compared with the two last sales, there has been a slight decline. Of the 1645 tons sold on Tuesday, 96 tons were British ores, which gave an average produce of 9 15-16, and sold at an average standard of 10s. 11s. 6d. per ton of ore; the remaining 1549 tons were foreign ores, which gave an average produce of 19s., and sold at an average standard of 16s. 6d. per ton of ore. On Dec. 16 there will be offered for sale 1645 tons, from Knockmahon, Genoa, Berehaven, Wheal Maria, Ockip, French Slag, Seville, Canobolas, Africa, Connorree, and elsewhere.

At the Wheal Basset meeting, on Tuesday, the accounts showed a credit balance of 189s. 18s. 6d. The profit on the two months' working was 1129s. 4s. 6d. The agent's report stated that the 110 cross-cut, east of Denali's shaft, expected to cut the Wheal Basset's south lode in the next two or three fathoms driving, and that the copper lodes in the mine are not quite so productive as for some time past, but the tin lodes are improved.

At the North Trekerby Mine meeting, on Tuesday, the accounts for the three months ending October showed—Balance last audit, 574s. 0s. 6d.; copper and tin sold and sundries, 2885s. 11s. 6d.—3759s. 11s. 11d.—September dividend, 424s. 11s. 6d. The profit charging three months' cost against two months' ore was 11s. 6d. A dividend of 44s. 4s. (1s. 6d. per share) was declared. The late engineer, James Sims, having died, his son, Mr. John Sims, and Mr. Thos. James were appointed in his stead. Capt. Pryor, Killo, and Trengoon reported upon the various workings of the mine, and the ends are looking more cheering than for some time past. The King of London, said that the accounts were brought up to the end of October, and that the shareholders could see that the ore was only credited that was sold on Sept. 25, following their financial position to be first rate, and second to no mine in the county Cornwall. Their ore sold on Thursday last amounted to 2241s. 8s. 7d., which, with profits of 300s. worth of tin, would go to the credit of the next account, out of which a dividend would be declared. He was the largest shareholder, and so far as he was concerned, he should like to see the mine worked fairly, and he should advocate regular workings of ore, so that they may receive permanent and substantial dividends.

At the Tincroft Mine (special) meeting, on Monday (Mr. J. Field in the chair), it was unanimously resolved that the company should be registered under the Companies Act.

At the Cradock Moor Mine meeting, on Nov. 27, the accounts showed a credit balance of 1171s. 11s. 6d. They purpose to sell about 300 tons of copper ore for the next two months.

At the Gonnema Mine meeting, on Nov. 27, the accounts showed a credit balance of 217s. 14s. 6d. A call of 2s. 6d. per share was made.

At the Great Work Consols Mine meeting, on Nov. 25, the accounts showed a credit balance of 935s. 8s. 2d. The lodes in the ends throughout the mine are looking better than for several quarters past. They have 1112 work bargains working by 58 men and 17 boys; 27 tribute pits working by 182 persons, at 1s. 2d. in 17, at 40s. per ton, and 10s. in 17, at the present price of tin. The quantity of tin sold for the month of Nov. was 17 tons 1 cwt. 1 qr. 1 lb., average price per ton 78s. 6d.

At the Garreg Mine meeting, on Thursday (Mr. H. B. Jones in the chair), the accounts showed a credit balance of 78s. 1s. 10d., and a balance of liabilities over 244s. 11s. 11d. A call of 3s. per share was made. Capt. Wm. Sandoe reported upon the mine at this moment is not rich, but he fully considers that a better state of affairs is likely to appear in a very short time.

At the Merilyn Mine meeting, on Thursday (Mr. H. B. Jones in the chair), the accounts showed a credit balance of 237s. 18s. 3d., and a balance of liabilities over 118s. 11s. 6d. A call of 1s. per share was made. Capt. Wm. Sandoe reported upon the prospects of the mine are gradually improving. The foot has hindered them, but they hope to sell 5 or 6 tons of ore next week.

At the Yarnier Mine meeting on Nov. 28 (Mr. G. Grant in the chair), the accounts showed a credit balance of 814s. 12s. 10d. A call of 1s. per share was made. Messrs. Hampton and Barkell reported upon the various points of operation. They have been searching for a productive lode, but to develop that which they have, to make permanent returns from where they now get nothing.

At the Wheal Polnear meeting, on Wednesday, the accounts for the four months ending August showed a credit balance of 91s. 1s. 6d. The profit on the four months' working was 314s. 18s. 7d. An important discovery has recently been made in the mine, and if present prospects continue the mine will, it is considered, enter the list.

At the Scourie Consols quarterly meeting, on Nov. 27 (Mr. Timothy Painter, in the chair), the accounts for the quarter ending October showed a credit balance of 277s. 14s. 8d., to pay off which, and for the further prosecution of the mine, a call of 6s. 6d. per share was made. Judging from the agents' report, this mine before long will be in a much better position. The close manner in which the merchants' shares were paid up, and the calls collected by the pursuer, gave much satisfaction at the meeting.

At the Prosper United Mines meeting, on Wednesday (Mr. T. Hill in the chair), a call of 1s. per share was made. Details in another column.

At the Great Caradon Mine meeting, yesterday, the accounts showed a credit balance of 91s. 2s. 11d. A call of 2s. per share was made.

At the Worsworn Down Mine meeting, on Nov. 28, the accounts for the four months ending September showed a credit balance of 461s. 11s. 11d. A call of 12s. per share was made. Captain Richard Harry reported upon the various points of operation. The pitwork and machinery, including the new water-stamps, are in good working condition, and no further outlay will be required thereon. They have employed underground and at surface forty-one persons.

The Old Clara, Pontewy, Llywernog, and Dolwen Mines have been consolidated, and now form the property of the Clara United Company (Limited).

At the Dun Mountain Copper Mining Company (special) meeting, on Thursday (Mr. Selanders in the chair), a resolution was unanimously passed authorising the directors to raise further capital. This step has been rendered necessary by the demand for chrome having been temporarily checked through the depressed state of the woollen and cotton manufacturing districts. A large portion of the capital was subscribed in the room.

At the Nerubudda Coal and Iron Company (special) meeting, on Thursday, the resolutions passed at a previous meeting for the increase of the capital was confirmed.

LEADS, DEC. 4.—During the past week the Mining Market has been very firm, at former prices. Wheel Prudence continue in good demand, and are likely to advance considerably. Transactions have also taken place in Hebdon Moor, Brea Consols, and Cornubia.—EDWARD BROOK, Mining Broker, 5, Bank-street.

LEADS, DEC. 4.—In mining shares very little business has been transacted, and prices have manifested less firmness. Hebdon Moor shares continue in request at advanced rates. At Coniston Out Moor Lead Mine upwards of 80 tons of lead ore have been raised since August last. Though the mine is not looking so well for ore at present, an improvement is expected, which it is hoped will be realised, and amply satisfy the shareholders of this successful mine.—J. GLENDILL and Co.

COAL MARKET.—On Monday, the fresh arrivals were 39 ships. For household coal the market was very dull, but there was no disposition to press sales, and very little business was done, prices quoting the same. Hartley's were much depressed, and sold at a reduction of 3d. per ton. Manufacturers' in short supply, and rather dearer.—On Wednesday there were 21 arrivals. The mild weather increased the heaviness of the market for house coal, and a reduction of 6d. per ton was submitted to. Hartley's a shade dearer; manufacturers' without alteration. Best coals, 18s. to 18s. 6d.; seconds, 16s. to 17s.; Hartley's, 14s. 6d. to 15s. 3d.; manufacturers' 14s. to 16s. per ton.—On Friday there were 6 arrivals. The tone of the market for house coal was again dull, at last prices. Hartley's improved 6d. per ton; manufacturers' steady at previous value. Hetton's Wallsend, 18s. 6d.; South Hetton Wallsend, 18s. 6d.; Stewart's Wallsend, 18s.; Braddyl's Hetton Wallsend, 17s. 3d.; Gosforth Wallsend, 16s.; Riddell's Wallsend, 16s.; West Hartley, 16s. 6d. per ton: 9 cargoes unsold; 55 ships at sea.

The importation of coal into London by sea in the month of November was 984 ships, containing 323,889 tons, being an increase on the corresponding month in 1861 of 1458 tons. The importation of coals into London by railways and canals in the month of November was 152,621 tons, being an increase on the corresponding month in 1861 of 11,539 tons.

LIVERPOOL COAL TRADE.—From the Coal Circular of Messrs. Platt we learn that the quantity of Cannel, coal, coke, and patent fuel shipped at Liverpool in November was 57,230 tons, and in the corresponding month of last year 47,462 tons, showing an increase last month of 9768 tons. The total shipments from January to November were 580,452 tons; same period of last year, 600,465 tons—decrease this year, 20,013 tons. The exports coastwise during Nov. were 8499 tons; same month last year, 9754 tons—decrease last month, 1255 tons. Total coastwise from Jan. to Nov., 1862, 77,705 tons; same period 1861, 83,256 tons—decrease, 1862, 5551 tons.

BRISTOL COAL TRADE.—During November 1544 tons of coal were exported overseas from the port of Bristol, as against 504 tons (showing an increase of 1040 tons) in the preceding month. The following are the places to which the shipments were made:—St. Michael's, 81 tons; New York, 115 tons; Smyrna, 36 tons; Jamaica, 6 tons; Demerara, 306 tons; Trinidad, 150 tons; and Cape Verde Islands, 850 tons—total, 1544 tons. In Nov., 1861, the exports of coal from Bristol amounted to 1901 tons, so that the shipments last month show a decrease of 357 tons compared with that period. The total shipments this year from this port up to the present time amount to 11,704 tons.

PIT ACCIDENTS.—The mortality from accidents in coal mines may be taken as follows:—In Prussia, 189 per 1000 persons per annum; Belgium, 28; England, 45; Staffordshire, 73.

#### GOLD IN WALES.

There is now before the public, as will be seen in another column, one of the various Welsh gold companies to which reference was made some short time since; and within the past few days another undertaking has succeeded in obtaining from private sources the necessary capital for the development of a property in the immediate neighbourhood of the Vigra and Clugan Mines.

DOLFRYNOG.—The directors have just completed the purchase of a property known as the Hafodwyr, which contains a large sulphur lode, that has yielded considerable quantities of gold.

EAST CLOGAU.—Operations are now being prosecuted upon the three lodes, which are reported to be upwards of 64 fms. long. Special attention is being directed to St. James's lode, which is 9 ft. wide, and is said to present unusually favourable indications. The two levels upon the St. David's lode are progressing satisfactorily. The machinery and foreruns are on the eve of erection.

ST. DAVID'S.—The great champion lode opens up well; it has increased in size, being now about 10 ft. wide, and producing large quantities of quartz. The directors are at present in negotiation with a gentleman who has had a lengthened experience in connection with some of the most prosperous gold mines in Australia, and should his services be secured, there is no doubt the company's property will be efficiently developed.

SOVEREIGN.—It is understood that a special meeting of the directors is called, to determine on the allotment of shares, and to assent to the introduction on the board of two gentlemen of high commercial position, who have each taken important interests in the company. The board it seems have delayed the allotment, pending negotiations with the vendor of the property, and it is stated that fresh arrangements, as regards conditions of purchase, have been entered into, which will be of material benefit to the company. From the title which has been given to this company, many persons have been unable to recognise its site in the locality, and whilst enquiries easily lead to the identity of sets in the Dolgelly district having local names, the oldest inhabitants would declare that no such set existed as the Sovereign. Its position may be more easily distinguished when it is stated that the East Cambrian is immediately to the westward. In visiting these mining sets from Dolgelly, those of the Sovereign are immediately opposite, extending to the north and east, the bridge at Llanelli crossing the Mawddach, the local names of which are Tan-y-craig, Brynlan-glo, Tanrallt, and Maesmawr.

MINING IN CANADA.—From advices received yesterday we learn that the Asot Mine, which is situated in Lennoxville, is at present in the New York market, and will probably be sold in a few days. The Acton Mine, to which reference has frequently been made in the Journal, is sold for about \$200,000 to Boston speculators; and the shares, which are eagerly sought for, have reached a high premium.

WICH.—At Bath, on Monday last, Mr. JOHN GARNETT TYRRE, late of the Tamar Tin Smelting Works. Mr. Tyrre was the largest shareholder in Tincroft and Drake Walls, and was deeply interested in many other mines. He was at all times ready to promote the welfare of the miner and mine adventurer, and was one of the most energetic supporters of the British and Colonial Smelting and Reduction Company, the object of which was to give miners the advantage of an independent smelting company.

#### To Directors, Solicitors, Secretaries, &c.

IMPORTANT TO ALL CONNECTED WITH PUBLIC COMPANIES.—Now ready, Price 2s. 6d., A HANDY BOOK OF WHAT TO DO AND HOW TO DO IT, IN ORDER TO FORM ANY MERCANTILE, MINING, AND OTHER JOINT-STOCK COMPANIES. Designed as a PRACTICAL GUIDE for Projectors, Promoters, Directors, Shareholders, Creditors, Solicitors, Secretaries, and other officers. By THOMAS TAPPING, Esq., of the Middle Temple, Barrister-at-Law. London: Published at the Mining Journal office, 26, Fleet-street, E.C., and to be had of all booksellers and newsmen.

#### SILVER ORE.

Sold by the GREAT RETAILACK MINING COMPANY, on December 4.

Lot.	Tons.	Price per ton.	Purchasers.
1	6	£111 1 0	Trefry's Trustees.
2	8	16 0 0	Michell & Son.
3	7	22 0 0	Sims, Williams, & Co.

#### LEAD ORES.

Sold on the 29th November.

Mines.	Tons.	Price per ton.	Purchasers.
Heardstoft	85	£26 16 6	Michell & Son.
Sold on the 1st December.			
East Logyias	65	12 16 6	Walker, Parker, & Co.
Glogfach	60	15 6 0	ditto
Cwmystwith	50	13 2 6	Panther Co.
ditto	50	13 8 0	ditto
Goginan	28	18 4 0	Trefry's Trustees.
ditto	8	16 12 6	ditto
Sold on the 2d December.			
Dylife	38	19 11 0	A. Courage & Co.
Sold on the 3d December.			
Laxey	100	17 18 0	A. Eytton.

#### BLACK TIN.

Mines.	Tons.	c.	q.	lbs.	Price per ton.	Amount.	Purchasers.
Gurlym	6	16	1	19	£33 10 0	£433 2 6	Chyndour.
Sold on the 22d November.							
Leeds & St. Aubyn	3	0	2	10	65 0 0	196 18 0	ditto
ditto	0	13	0	16	56 0 0	36 16 0	ditto
West Beam	10	4	3	8	71 0 0	727 0 0	Calenick.
Drake Walls	9	0	0	0	69 2 6	—	Michell & Co.
ditto	17	0	0	0	66 0 0	—	ditto
Sold on the 26th November.							
British Tin & Cop.	0	27	3	24	63 10 0	—	—
ditto	0	5	0	21	63 0 0	—	—
Sold on the 29th November.							
St. Just United	5	15	2	24	68 15 0	397 15 0	Chyndour.
Atlas	2	1	0	25	61 0 0	125 14 7	Trethellan.
Sold on the 1st December.							
Gt. Wh. Bay	21	10	2	14	—	1254 0 6	Bisaco Co.

#### COPPER ORES.

Sold at LIVERPOOL, by Mr. James Hallows, ex Magellan, on December 1.			
Lot.	Tons.	Price per ton.	Purchasers.
1	65	£23 10 1	Williams, Foster, & Co.
2	67	23 5 9	ditto
3	67	23 12 6	Bibby, Son, & Co.
4	67	23 10 10	Williams, Foster, & Co.
5	68	23 9 7	ditto
6	68	23 4 6	Bibby, Son, & Co.
7	68	23 3 6	St. Helen's Co.
8	68	23 6 6	Bibby, Son, & Co.
9	68	23 14 4	Williams, Foster, & Co.
10	68	23 11 9	ditto
11	68	23 12 0	J. P. Campbell.
12	68	23 12 0	ditto
13	68	23 14 4	Williams, Foster, & Co.

#### COPPER ORES.

Sampled November 12, and sold at Swansea December 2.				
Mines.	Tons.	Produce.	Price.	
Cobre	104	13 1/2	£11 9 0	
ditto	102	13 1/2	11 10 6	
ditto	100	13 1/2	11 8 0	
ditto	87	13 1/2	11 13 0	
ditto	42	13 1/2	17 7 0	
ditto	40	13 1/2	17 0 0	
ditto	12	56	47 7 6	
ditto	96	13 1/2	11 10 0	
ditto	92	14	11 6 0	
ditto	91	13 1/2	11 12 0	
ditto	86	13 1/2	11 10 0	
ditto	82	13 1/2	11 10 0	
ditto	53	13 1/2	11 6 0	

Mines.	Tons.	Produce.	Price.	
Cobre	79	14 1/2	£11 15 0	
ditto	41	24 1/2	20 10 0	
ditto	37	24 1/2	20 10 0	
ditto	35	24 1/2	20 10 0	
Ookip	51	33 1/2	28 16 0	
ditto	40	34	28 13 6	
ditto	48	34 1/2	28 9 0	
ditto	47	34	28 13 0	
Wheal Maria.	69	39 1/2	33 7 0	
ditto	67	39 1/2	33 9 0	
Berrehaven	52	10	8 11 0	
Lochwinna	43	9 1/2	8 5 0	
Dun Mountain	43	9 1/2	8 11 6	







## Notices to Correspondents.

\* Much inconvenience having arisen in consequence of several of the Numbers during the past year being out of print, we recommend that the Journal should be regularly filed on receipt: it then forms an accumulating useful work of reference.

On my estate, in Northumberland, I have just discovered a large quantity of red paste, which soon becomes hard, about 5 ft. from the surface, and in this paste a clayey sand, and below the sand more red paste, to a considerable depth, but how deep we cannot tell, from the water. This paste, I am informed, is almost pure iron, and the sand also contains fine iron. The same was found near the bottom of the hill, and all the land below, for several hundred acres, presents, on the surface, the same appearance as this did on the surface—a yellow-brown “sledge,” which, when dried, contains 12 per cent. of iron. There is a great quantity of limestone on the hill, and a working miner informs me that this appearance of the iron indicated lead in close proximity under the limestone. Can any reader, through the Journal, give me information on the point?—A. SCHUBERT: Dec. 3.

Mr. KIRKWOOD, supposed to be in Scotland, who was about two years ago engaged on the San Paulo Railway, in the Brazil, is requested to send his present address to the Mining Journal office, 25, Fleet-street, London, E.C.

LAST LADY (Llandover).—Can any reader give information respecting this mine? I have been a shareholder some years, have paid my calls promptly, and have always understood that the mine was progressing favourably. For a long time past, however, I have not been troubled with calls, and, seeing that the mine has ceased appearing in the Share List, I conclude that it is either defunct or being worked to a profit as a private company.—TYBO.

MYNDY IRON ORE COMPANY.—I fear that “One who has Enquired, and Feels Satisfied,” in the Journal of Nov. 15, had more questions put to him in the Journal of the following week, by “One who has Examined, and Feels Dissatisfied,” than he could easily answer. I think the caution given by “B.” relative to Lady Bertha, in last week’s Journal, is quite as applicable to the Myndy Iron Mines, also why are things kept in the dark? It is a great pity that your correspondent in last week’s Journal is not willing to have his name published in the report on this property, as it would give satisfaction to the proprietors.—ANOTHER DISSATISFIED SHAREHOLDER.

MYNDY IRON ORE COMPANY.—A Shareholder should address a letter to the directors: we consider they should make some communication to the proprietors, to allay the uneasy feeling which evidently exists as to the value of the property.

MYNDY IRON ORE COMPANY.—J. O.—We do not possess a list of the shareholders, and therefore cannot forward the information to our correspondent.

FLUOR-SPAR.—I frequently notice in your mine reports that the lodes are described as containing fluor-spar, amongst other things not being metal, and should be glad if any of your readers could state whether any use is made of it? If not, I should like to know at what price per ton pure, or nearly pure, fluor-spar could be supplied at the mine? Could I learn the percentage of fluorine contained so much the better.—B. H.

EAST CARADON.—It appears to me that, were Capt. Seecombe to send a periodical report (bearing his signature) of East Caradon to the Journal, it would very materially tend to nullify much of the unfavourable rumour that is circulated by others as to that mine’s prospects. I consider that had this been done during the past month, the panic, causing so heavy a fall in the value of the shares, would have been frustrated; and I think the management and he (who are supposed to have the interests of the shareholders at heart), are much to blame for not having, when first such adverse reports were circulated, adopted this plan—one that is adopted by the agents of other mines, thereby enabling those away from the locality to be informed officially, and judge for themselves whether it is prudent to hold on their shares or sell.—J. B. BRENCLEY: 78, Old Broad-street, Dec. 4.

GREAT WELSH CONSOLIDATED GOLD MINING COMPANY.—This company is not yet started; when its arrangements are completed, all particulars will appear in the Journal.

WARRAK AND POLICE MINING COMPANY.—I am directed to acquaint you that the share list of this company is closed. The directors consider that in addressing you it will be the best mode of giving notice to the public of this fact, having lately received numerous applications for shares, which they are unable, for the above reason, to allot.—A. E. WILLIAMS, Secretary.

Can any reader afford me information as to the Cumberland Black Lead, afterwards the Borrowdale Mining Company?—R.

GUTHRIE LEAD MINE.—Can any reader inform me whether the above projected mine, of which a prospectus has lately been issued, is the same as mentioned in a prospectus circulated privately not long ago, in which it was called “The Glyn Lead Mine”? Several of the particulars given in the two documents as to locality, former operations, runs of ore, &c., certainly tend to confirm the rumour that they refer to the same project; and it would, therefore, be as well that the public should know something more than the prospectus last issued reveals with respect to the proprietors, who are to receive 3000 shares of the capital with 10000 worth of shares, before investing in the concern. It is stated in the first prospectus that 3800 shares were required for the purchase of the mine, 1000 of which, however, it is added, “need not be paid until the expiration of 12 months, the remainder being applied to extending the level,” &c. Now, if the mine was bought from the original owners for the sum in question, it does seem that a profit of 36200, is rather too much for the new proprietors, unless, indeed, some good reason can be given for it, which does not appear on the face of the new prospectus. I make no insinuations; my object is to obtain information, and if it be shown that the project be a bona fide honest one, I shall be glad to aid it.—INQUIRER.

MINING COMPANIES LAW.—TRANSFER OF SHARES.—“F. C.” (Gateshead).—Transfers of mining shares require a 6d. inland revenue stamp, whether the company be constituted on the Limited Liability Principle or on the Cost-book System. An unstamped transfer would be worthless in a court of law.

WELSH BARRETT AND GRYLES.—In the Journal of Nov. 22, in the report of this mine, it is stated that the tin sold on Nov. 15 realised 1064½ ss. 9d.; it should be 1604½ ss. 9d.—J. R. WILKINS.

The curious specimen of tin alluded to in Mr. Henwood’s Photograph, “Old Men and their Works,” situated at the mine of Mr. W. Heath, St. John del Rey Mines, was valued exceedingly. He was a well-known, acute, and experienced miner, having been for many years at the Morro Velho, St. John del Rey Mines, as well as many mines at home. He always declared his intention of giving it to some public institution, as a rare and most extraordinary specimen; it is, however, believed to have been given to the late Mr. Joseph Carne, of Penzance, who was a liberal patron and kind friend of Captain Heath, to be placed in his own splendid collection, or to be deposited in the Museum of the Royal Cornwall Geological Society, at Penzance.

MYNDY IRON ORE COMPANY.—Our chances of success were never so great as at the present. My brother adventurers will do well to send a practical agent to inspect the mine before parting with their shares.—A SHAREHOLDER.

TO WHEAT NEPTUNE.—“A Cautious Man” must be blessed with an amazing amount of egotism to ask the questions he does about Old Wheat Neptune; but I wish him to understand that his mesmeric influence does not extend to me, and I boldly tell him his conduct is both impertinent and obtrusive; and I plainly see it only done to bring himself into notoriety. From his last letter, I take it he intends to intimate, but only in a quibbling, special pleading manner, that he did not refer to Old Wheat Neptune. If he did not, then to what mine did he refer? I will repeat two questions he leaves unanswered in my former letter.—Why did he not, when the company was first launched, make enquiries—not put them when it has been in existence many months? Can he produce a single person who made an enquiry but what it was answered, or who can say that aught was hid, or attempted to be hid, from him? His question, No. 1, is distinctly mentioned both in the body of the prospectus and in the late agent’s report on the mine. No. 2 was as distinctly mentioned in the majority of the advertisements, certainly those that came under my own eye. No. 3, I have seen the list of directors, which can be seen by any one at the company’s office, and a more respectable body of gentlemen cannot be found; but I certainly shall not parade their names before the public to oblige even such a great authority as the “Cautious Man” thinks himself. No. 3 can also be answered satisfactorily on enquiry at the office by anyone interested.—OVER CAUTIOUS.

THE SILVER BANK.—ABERNATHY.—GREAT DARRHEN.—We cannot publish the letter of “A Subscriber” without the writer’s name being attached.

EAST CARADON.—May I be allowed to correct your correspondent, Mr. E. Cooke, in his remarks in last week’s Journal? He must have been labouring under a great mistake when he says—“215,000l. does seem a very high price for a property paying such small dividends.” I can only correct him and the public by comparison with other mines. South Caradon is selling for 204,500l., and paying 15,360l. yearly in dividends. East Caradon is selling for 120,000l., and paying 12,000l. yearly in dividends. The Devon Consols is selling at 515,000l., and paying 44,000l. yearly in dividends, at 10l. per share, whereas only 7l. has been paid for a considerable period until the last. West Caradon is selling at 32,000l., and paying 3072l. yearly in dividends. It will be seen, therefore, that East Caradon is selling at a considerably lower price than either of the foregoing mines, in proportion to the amount of dividends they respectively pay every year, and it is most extraordinary that Mr. Cooke should have overlooked the fact that East Caradon is paying 9216l. more in dividends yearly than South Caradon, while each mine is selling for about the same sum. If East Caradon stood at the market at 300,000l., or 50l. per share, it would then be about the relative value with South Caradon, according to the dividends paid. I do not wish to make any invidious comparisons, but merely to correct Mr. Cooke and the public generally on a point so important.—VERAUX.

“G. F.” (An Old Subscriber) will call at the General Gas Apparatus Depot, 218, Great Portland-street, London, W., I shall be happy to show him an apparatus in accordance with his requirements.—JAS. CORCUTT, Manager.

ATMOSPHERIC GAS.—“G. F.” (Polegate).—The apparatus by which the atmospheric gas referred to in the Journal of Nov. 23 is produced is extremely simple, and has been invented by Mr. Mongruel in this country. It is simply a gas carburetor, employed to saturate atmospheric air (which may be forced through it by any means, provided a proper supply be kept up) with an inflammable vapour, and we presume the same method would ensue whether benzene, naphtha, or any similar liquid were used. The apparatus consists of two chambers, the upper containing the principal body of liquid, and the lower a small quantity to saturate the air with. The liquid in the lower chamber is kept at a uniform height by a tube and valve, or other means. The lower chamber is completely filled with wicks, which are kept saturated by capillary attraction; the air passes through these wicks, and not through the liquid, and picks up the inflammable vapour as to become capable of ignition. As to the patent of the invention, we cannot pronounce an opinion; “G. F.” had better consult a patent agent, or make a search for himself. We are equally unable to state whether the apparatus would soon become choked by the thickening of the oil, or whether the cost of the carburetor has been stated, but we should think not more than a few shillings. The inventor is the only party who could answer such enquiries as those of “G. F.” altogether satisfactorily. A space about 4 ft. by 2 ft. would, we should think, be sufficient for the entire apparatus for a moderate sized mine, but this would depend upon many circumstances.

With last week’s Journal we published a SUPPLEMENTAL SHEET, which contains a paper by Mr. JAMES NAYSMITH, on the “Pillar and Stall,” “Double Stall,” and “Long Wall” Systems of Working Coal, practically considered, with illustrations; also, the paper, by Mr. J. GOODWIN, of the Hyde and Haughton Collieries, on the “Long Wall” System, “Pillar and Stall” Systems of Working Coal, read at the Manchester Geological Society, on Nov. 25. The report from Cornwall and Devonshire; Foreign Mining and Metallurgy; Rotatory Engines;

Flexible Valves; also, the meetings of the Brynabour, North Miners, East Kongsberg Native Silver Mining Company of Norway; and Central American Mining Companies.

\* In a SUPPLEMENT to the Journal of Nov. 15 we gave full details of the Tregurtha Downs and Owen Vein Mining Company, with plans; also plans and particulars of the North Pool Mining District; the International Exhibition; Minerals in Spain; Minerals in Newfoundland; Brick Making Machinery; Slow Combustion Boiler; Mon Moor Iron; Returns of Lead and Tin, &c.

THE MINING JOURNAL.  
Railway and Commercial Gazette.

LONDON, DECEMBER 6, 1862.

The returns from the Board of Trade, with respect to the exports of the United Kingdom, for the ten months ending Oct. 31, do not present any feature of special interest. There is again a decrease, as compared with last year, of 1,960,973l. on general balance, the difference between an aggregate of 103,519,269l. in 1862, and 105,480,242l. in 1861. The enumerated articles amount to 97,199,612l., and unenumerated to 6,319,657l., against 96,621,916l. of the former, and 6,858,326l. of the latter, in last year.

Mining, and its results, again gives an exception, by showing a very marked increase in opposition to the general decrease. The excess of exports of articles identified with this branch of British industry, in their crude or manufactured state, is 1,944,221l., after allowing for a falling off, in machinery, to the extent of 224,455l., and of 5461l. in zinc, being together 229,916l. The total for the ten months of this year is 24,066,199l., against 22,121,977l. in 1861. The greatest improvement is in machinery, which is 459,968l. over last year; iron is 391,757l.; copper, 387,678l.; tin-plates, 326,209l.; lead, 298,397l.; tin unwrought, 115,867l.; steel, 91,525l.; coals, 70,291l.; and brass, 32,445l. in excess of last year.

The balance of trade in the precious metals, during the same period of this year, is in favour of this country, the imports being declared at the value of 24,781,076l., and the exports at 21,990,484l., being, consequently, a difference of 2,790,592l. The imports consisted of 16,164,465l. in gold, and 8,616,611l. in silver, while the exports were 12,208,069l. in gold, and 9,782,415l. in silver. Our largest amount of exports of bullion and specie was 8,860,969l. to Egypt, in transit to India and China, against which we received only 5914l.; to France we sent 4,701,506l., but received 1,247,751l.; to Russia, 1,855,401l., against 764,554l.; to Turkey, 1,932,645l., against 2935l.; to Spain, 1,158,515l., against 22,330l.; to Portugal, 852,629l., against 84,268l.; to Holland, 317,427l., against 163,671l.; to Brazil, 255,618l.; to British North America, 241,212l., against 28,083l.; and to Gibraltar, 105,470l., against 22,085l. On the other hand, we received from Mexico and South America 6,396,709l., against 1,155,274l. sent from this country; from the United States, 8,112,806l., against only 36,754l.; from the Hanse Towns, 1,494,301l. against 214,602l.; from Belgium, 691,704l., against 239,325l.; from Malta, 12,101l., against 389l.; and from the West Coast of Africa, 92,549l., against 28,695l.; from Australia we imported 5,202,086l., without any export of the same nature; while from South Africa we had 12,032l., and 11,088l. from British Columbia, on similar terms. “Other countries” sent us 88,921l., against 34,053l. exported from our shores.

The rapid rate of exhaustion of our coal fields, and the dawning certainty that if every ounce of coal contained in the prolific deposits of the United Kingdom were properly utilised we should then have insufficient to reduce our immense treasury of metallic ores to pure metal, to say nothing of the supply of those other requirements and purposes to which we apply coal at the present time, and for which it will, without doubt, be used much more extensively in times to come, make us turn our earnest attention to every source that offers a prospect of supplying us in future with this most invaluable commodity. So precious will coal be considered in a few years hence that many veins or seams that are now neglected, and thought scarcely worthy of notice, will become objects of interest, and additional sources from which a failing supply will be endeavoured to be kept up.

The more perfect the knowledge we possess of our actual wealth in this article, the greater will be the economy we shall evince in the working and application of it. It is, then, profitable for all who are interested in this particular branch of commerce to obtain the fullest information respecting the different coal districts of this country, and also to seriously consider the means by which each peculiar deposit may be worked best. It is a notorious fact that many seams of coal are worked by niggardly proprietors, that ought to be left until a time when, coal being more valuable, it would be possible to produce a much larger yield from a given area, for it is undeniable that very large tracts are now frequently passed over in the event of the vein becoming a trifle thinner than in those parts where it is possible of being worked at a mere nominal profit. In the same manner also are large quantities of coal abandoned (and which for future purposes are entirely lost) that are a little softer than the ordinary character of the seam, in consequence of their turning out a greater proportion of slack. Immense quantities of small coal, too, are annually buried in the bowels of the earth that might be usefully and profitably employed, either in the manufacture of coke or compressed into blocks of patent fuel. The small coal in many parts of England is thus wasted through the misconception of the proprietors as regards its value, and in no district is the slack so much disregarded by the miner as it is in the Forest of Dean, although well qualified for making coke or patent fuel. This remark, however, is entirely confined to the large works of the Middle, or Parkend series, as the works on the Coleford Highdelf series are at present of so unimportant a character, being confined to the outcrops, that very little besides small coal is obtained from them; and, as a consequence, in such circumstances it is utilised. The proprietors of collieries in the Parkend series do not pay their men for any slack that may be made, and, no doubt, this is done in order that it may induce the colliers to take greater care in the cutting, thus obviating the destruction of much large coal.

We think, however, if it were the practice to pay a nominal sum per ton on all coal sent out of the pits as slack, the result would be a large saving of fuel. It would still be to the interest of the men to obtain as much large coal as possible, inasmuch as a higher price would be paid for it. There is always an unavoidable amount of slack made in holling and cutting, and, as there is less trouble in goafing or gobbing this than in loading it into the pit carts, the miners generally adopt this plan, and at least 15 per cent. of the actual contents of a vein is thus lost. The coals obtained from the Parkend series are hard, and do not make much small after they are delivered at the pit’s mouth. The engines, &c., use a good proportion of this, and the coalmaster supposes the surplus to be unworthy of notice. This, however, is a fallacy, for if this surplus were added to the waste underground at least 20 per cent. of the produce of the colliery might be converted to profitable purposes. Having completed our remarks upon the great waste that is going on in the Forest of Dean, both as regards the working of thin veins and the treatment of the small coal, we now proceed to give a description of the different series, and the veins which each comprise.

The highest of these series is called Woorgreens, and consists of three veins; they are, however, unimportant, and the workings in them have for some time been abandoned. Their extent is very limited; indeed, the diameter of the basin of this series does not exceed two miles. The depth from the surface to the lowest of these veins is about 45 yards, in the centre of the basin; and, as the veins occur so near together, great difficulty will be encountered in obtaining anything like a large proportion of their contents. The coals are of a hard nature, and break with square fractures. They are found to contain a considerable amount of sulphur, consequently their chief use would consist in the burning of bricks. Argillaceous nodules of ironstone are found in association with these veins, but not to such an extent (at least, so far as present experience goes) as to offer much inducement to the miner.

The entire quantity of coal contained in the Woorgreens may be estimated at 3,760,000 tons. The roofs and floors of each vein are found to produce a very valuable clay, suitable for porcelain, &c.; and it is not improbable that at some future date this, in combination with the coal and ironstone, may be worked. The most important series at present worked in the Forest is the Middle, or Parkend series. This consists of nine veins—Dog, Smith Coal, Little Delf, Parkend High Delf, Starkey, Little Coal, Rocky, Upper Churchway, and Lower Churchway, giving an average aggregate thickness of 21 feet, and supposed to contain

420,396,800 tons. Some of the veins of this series are being worked very extensively by the Parkend Coal Company, the Bilson and Crummeadow Company, Mr. CRAWSHAY, and several others, and the workings have been highly lucrative. The depth in the centre of the basin to the Lower Churchway coal is about 300 yards. The Dog Delf and Smith coals make very excellent gas and coke,—the latter is well suited for iron smelting, and is extensively used at the Cinderford and Parkend Ironworks. They are capable, also, of producing first-rate foundry and locomotive coke. The Lowrey, or Parkend High Delf coal, has obtained a great celebrity in the West of England as a house coal, on account of the cleanliness with which it burns, its large size, and power of resisting the injurious effects of exposure to the variations of weather; it is also a very good gas and coking coal, and is used extensively in the West Indies for sugar boiling, and in many other places for steam purposes. Starkey is a very good house coal, burns clean and fiercely, and much resembles the Durham coals. It is a favourite coal with those who have been used to the Tyne or Tees coals, but in many parts of the West of England, where the more durable coals of Glamorganshire and Monmouthshire have been more generally used, and where cleanliness of burning is not considered so great an object as durability, the Starkey vein is not so thoroughly appreciated. Rocky is another very favourite coal for household purposes. It combines much of the durability of the Glamorganshire coal with a cleanliness quite equal to that of the Starkey. It may be inferred from its name that it is of a very hard nature, and such it is. It is so regularly laminated that when broken with a hammer it does not make any slack, but divides into small cubes. This coal will produce about 12,000 ft. per ton of gas of a very brilliant character. The Upper and Lower Churchway High Delf are much of the same nature as the Smith coal, but rather harder. The lowest series is by far the largest, it consists of—Brazeley, Yard Delf, Whittington, Coleford, High Delf, and Upper and Lower Trenchard.

These veins give an aggregate thickness of 16 feet, and are calculated to contain 643,862,400 tons; thus do we see that the Forest of Dean coal basin is computed to be capable of contributing nearly 1,100,000,000 tons of coal for the use of mankind. Strikingly large as this quantity may appear to be, it would do little more than supply the present rate of demand on our coal fields for a period of 12 years, as there can be little doubt that the actual rate of exhaustion is now over 90,000,000 tons per annum. The Brazeley vein has never been worked to any extent; less, in fact, than any other of this series. The coal obtained from it is very hard, and of a suitable quality for household purposes, but the principal difficulty that the miner has to encounter here is the water which the vein contains. It exists in such quantities as to demand the employment of very powerful pumping machinery, and as the Coleford High Delf vein, the principal of this series, has never been sunk to such places as the shafts would intercept the Brazeley, it is not at all probable that the latter will ever be worked much until pits are sunk through it, with the view of winning the lower and more important veins.

GOLD EXTRACTION.—Every experienced gold washer maintains that it is a very easy matter to extract gold from rich quartz. This fact is daily proved by the operations carried on in South America, California, and Australia; quartz reefs, containing from 2 ozs. and upwards of gold per ton, are wrought by ordinary gold diggers, and the gold extracted therefrom on the spot by very simple means. The rich bunch of quartz discovered at the Clogau Mine has produced about 7 ozs. of gold per ton, and some of the blocks as much as 1 lb. of gold in 35 lbs. of rock. The experienced gold washers would have made short work of such a rich mass. They would not have troubled themselves about Berdan’s machine, or any other machine, but set to break and crush on the mine the rich blocks, and get out the gold by washing in tubs, &c. It is believed that had this been done at the Clogau Mine a much larger amount of gold would have been extracted, at a considerably less cost than by the mode which has been adopted there. Berdan’s pans destroy both gold and quicksilver. Although gold is easily extracted from rich quartz, it is not so when in small quantities, and combined with pyrites, blende, &c. It is true that the great gold lodes of Marmato and Morro Velho, in South America, are composed principally of pyrites, and other heavy minerals, and only produce about ½ oz. of gold per ton, but only men of great experience can separate the gold from such compounds with profit. We are informed that Mr. Evan Hopkins has now succeeded in introducing a very great improvement in the process, by which gold can be separated from any compound, at a cost not exceeding 4s. per ton, or (say) 1 dwt. of gold. His plan has been tried at the Cambrian, in crushing and extracting gold from rocks containing less than 1 dwt. of fine gold per ton. Although the gold appears as light as ground gilt, it is effectually caught and brought into the melting-pot. The process has been inspected by men of experience, and we understand it can now be seen in daily operation extracting gold from the refuse. We are informed that the mines will soon be opened, and orders have been sent to the mine agent to supply the mill with minerals containing 1 oz. of gold per ton. If this can be done—that is, if there be mineral there of that value, or even ½ oz. on an average—the company will receive as regular returns as those obtained from foreign mines. Hence the question of extraction, which has been the bugbear so long in the Welsh gold district, is set at rest by Mr. Hopkins’s simple and economical plan of operation.

PRECIPITATING COPPER AND SILVER FROM THEIR SOLUTIONS.—An invention applicable to the treatment of solutions containing salts of copper and silver, obtained by well-known processes, has just been patented by Mr. G. Bischof, of Swansea. He throws down the copper by finely-divided iron obtained by reducing an oxide, sulphide, or salt of iron, taking care to avoid fusion. To obtain this finely-divided iron, Mr. Bischof grinds burnt ores from the manufacture of sulphuric acid, and mixes them with 25 per cent. of coal; the mixture is kept at a red heat in retorts for 8 to 12 hours, and cooled before exposure to air. With this finely-divided iron it is stated that a very pure precipitate is obtained. When the solution contains persulphate of iron, such persulphate is decomposed with magnetic oxide or carbonate of iron, the basic sulphate is allowed to settle, and the solution is drawn off, and the copper precipitated. Metallic silver may be obtained by precipitating the silver as chloride, and then converting this into sulphide by treating with sulphide of sodium or potassium.

THE RISCA COLLIERY.—The character of the coal raised from the Risca Colliery is so well known in commercial circles that it is unnecessary to particularise the veins worked, or to comment upon the favourable position which the coal enjoys in the market; it will suffice to state that the property is situated in the parishes of Mynddyswyn, Risca, and Machen, in Monmouthshire, about 6½ miles from Newport, with the docks and wharves of which place the colliery is in direct railway communication—the Western Valleys Railway running through the property. Vessels drawing not more than 22 ft. of water can load in the docks at Newport, whilst those up to 400 tons register can lie and load alongside the wharf. The property covers an area of upwards of 1600 acres, beneath which are four valuable seams of coal, at the aggregate thickness of 28 feet. The terms upon which the rights to work the minerals are held are highly favourable—1028 acres being leasehold, at 757l. fixed rental; 330 acres leasehold, at 500l. minimum fixed rental; 130 acres freehold; and 167 acres copyhold. In 1854 the property was sold by Mr. J. Russell to the present proprietors for 130,000l., and as it was bought by men of business no question can be raised as to its being worth the amount paid; in consequence, however, of a trespass having thrown the concern into Chancery, and of the difficulties being still further increased by the lamentable explosion which occurred in the colliery, the property, which is at present worked under the supervision of the Court of Chancery, is to be offered for unreserved sale by auction on Tuesday, December 16—Messrs. Fuller and Horsey having been entrusted with the sale by order of the Master of the Rolls, and with the concurrence of the mortgagees. Upon a moderate calculation of profits, it is estimated that the present value is upwards of 100,000l. Taking the profits at 7½ years’ purchase, which is giving 16 per cent. upon the outlay; the royalties to pay 7 per cent.; the freeholds, 4 per cent.; the houses, 10 per cent.; and value of entire machinery and plant at 5000l., it will be found that this estimate is not excessive, so that if a moderate percentage be taken off, in consideration of the sale being forced, at least 75,000l. should be realised for the property. For this outlay Mr. Greenwell estimates a profit of 9932l. 6s. 8d. per annum during the first 11 years, and 11,400l. per annum during the remaining 23 years which the leaseholds had to run. Indeed, from the results at present being obtained it is proved that the coal from the Black Vein can be raised and delivered at the wharf for 7s. 2d. per ton, that from the Rock Vein at 6s. 2d., and that it was readily saleable at 9s. per ton. The entire property will be sold in one lot—the coal field extending under an area of 1400 acres, and the surface lands, comprising the Risca Farm, with manager’s house and cottages, and



the Buck Farm, with limekiln and cottage, agents' houses, offices, workmen's cottages, &c. Of the four veins existing in the property the Black Vein is the most valuable, being a first-class steam coal, and is well known in the market; it is also upon the Admiralty list. The seam is nearly 9 feet thick, and at the present time about 80,000 tons of coal per annum are being raised from it. The Rock Vein is a steam coal, about 4½ feet thick, and is used, as also is the Black Vein coal, by the Royal West India Mail Company; from the Rock Vein there are about 80,000 tons per annum being raised. The Big Vein, which is about 12 ft. thick, and yields a coal well adapted for the making of coke, or for general manufacturing purposes, has not yet been worked, but when thought desirable can be worked simultaneously with the Black Vein. In addition to these there is the Sun Vein, from 2½ to 3 ft. thick, which is also unworked at present, but contains an excellent house coal.

**THE GREAT DEVON AND BEDFORD (COLCHARTON) COPPER MINING COMPANY (LIMITED).**—The Colcharton Estate has been long known as a valuable mineral property, but the late proprietor contented himself with the product from the cultivated lands on its surface, and declined all offers for mining operations; his successor has, however, resolved to dispose of the freehold (surface and minerals), and this company have become the purchasers. The mineralogical position of this property, and its congenial indications, are pronounced by Capt. Richards and Cleme, of the Devon Great Consols, and Captain Phillips, of the Bedford United Mines, and several other competent authorities, to be all that is desirable for assuring great success. The property is surrounded by and adjoins the Devon Great Consols to the north, the Devon Great Consols south, or Wheel Thomas lode, the Bedford United great productive lode, the Tavistock lode, and the north lode of West Hawkmoor on the west, the Wheel Crebor on the south, and the Crelake Mines on the east side. The four east and west champion lodes named above pass through the estate, and there is a strong opinion expressed that in addition the great champion lode of the Devon Great Consols, now working on the north, may also be found in this sett. The unquestionable and fully-ascertained facts are, however, the four east and west champion lodes before named, together with the great cross-course of the Wheel Crebor, which intersects from north to south, and a caunter lode which runs diagonally across the estate. The known large product of these lodes is quite sufficient to warrant a favourable opinion that the undertaking will prove a great success, under judicious management. The company will be free from all royalty charge, and, therefore, in addition to the valuable minerals, it will possess a valuable, well cultivated estate, with homestead and farming appointments, &c.

**IMPROVED GONIOMETER FOR MINE DIALLING.**—We have already referred to the improved goniometer for mine dialling invented by Dr. August Junge, professor of the higher mathematics, and teacher of practical mine surveying in the Royal Mining School of Freiberg, Saxony, and the professor has now favoured us with full particulars as to the character of the instrument, and the mode of using it. Prof. Junge's dialling goniometer consists of an improved theodolite, and a couple of optical signal boxes, with a light inside at which to take the sights. Both the theodolite and the signal boxes are so mounted as to be capable of assuming various angles to each other, and are connected with each other by a cord which passes round the supporting stem of each. The distances between the instruments and the rise or fall are taken in the usual manner. The accuracy of the survey made with the goniometer (angle measurer), of course, depends upon the care with which the angles are taken. When the goniometer is to be used for surveying at surface all that is necessary is to mount it on a tripod, when it can be used in the same manner as a small theodolite. The goniometer, however, although of the nature of a theodolite, has certain differences which are worthy of notice; it has no altimeter-circle, and above the telescope open sights are provided. Prof. Junge regards as new and peculiar in his dialling goniometer the protecting clamps over the regulating screws, for levelling the instrument; the spindles round which the cord passes, and upon which the goniometer and optic signals are mounted; the construction of the optic signals, which are semicylindrical lamps, with ground glass in a circular opening in front—the ground glass has division lines across, and in a concentric circle; the iron bearer on which to support the goniometer and signals; and the gimlet, or auger, with which to bore the holes to fix the instruments in. The spindles which support the instruments have male screws at the top, and the instruments fit on by a socket beneath them, carrying a female screw. Prof. Junge has had much practical experience with the instrument, and is convinced of its utility and superiority. He finds that whatever may be done, in the way of surveying, with the compass may be done with the dialling goniometer; that the goniometer may be used in all places where there is sufficient room to survey with the compass, whilst the goniometer has the additional advantage that it may be used in shafts of any inclination as well as in levels; that in general the survey is made quite as quickly with the goniometer as with the compass; where long straight sights can be taken the goniometer saves time, but where the sights are short, and the curves numerous, the survey is most quickly made with the compass; but even in the latter case as much can be done with the goniometer in three hours as with the compass in two; the survey with the goniometer is remarkably exact, and the instrument is as easily and conveniently handled. Compared with the theodolite, the survey is more speedily made with the goniometer under all circumstances, and especially in shafts, where, indeed, the theodolite can only be used with much difficulty and inconvenience. But this is not all, for the cost of the complete apparatus for surveying with the theodolite is from twice to three times dearer than for that necessary for surveying with the dialling goniometer. The instrument has been patented in Saxony, and a large number of them have, we understand, been manufactured and sold by Osterlander, the mathematical instrument maker of Freiberg, who has purchased Prof. Junge's patent right.

**MANUFACTURE OF OXYGEN GAS.**—Some attention is at present directed to the manufacture of oxygen gas, owing to the formation of the Oxygen Gas Company for carrying on the manufacture under the patent granted to Mr. James Webster, of Birmingham, whose name as an inventor is already well known to our readers. The enormous price of oxygen gas, as at present produced, is no doubt a prohibition to its use for any other than exceptional purposes, 8l. per 1000 cubic feet being the minimum cost under ordinary circumstances, to the occasional consumer. Nearly every substance capable of yielding or assisting in the separation of the gas has been tried, but in practice the oxide of manganese has, we think, without exception been proved to be the most economic—the fallacy of attempting to employ more costly or less highly oxygenated material, upon the supposition that the by-products could be made marketable, having always resulted in loss. The invention of Mr. Webster consists in a mode of treating a mixture of nitrate of soda or other nitrate with an oxide of iron, for the purpose of obtaining oxygen gas, nitrogenous compounds, and the base of the salt employed. For this purpose he submits the mixture to distillation in an iron or other proper retort. He condenses the nitrogenous compounds contained in the gaseous products of the distillation in water or in any other convenient manner, and thus separates those compounds from the residue of the gaseous products, consisting chiefly of oxygen gas, which he collects in a proper receiver; the sodium in the retort at the end of the process contains the base of the salt employed, which, if it be an alkali or alkaline earth, will be in a caustic state. In practice he takes one part of nitrate of soda and two parts of the sesquioxide of iron or burnt oxide of zinc, and mixing them well together, he throws the mixture into a red-hot retort, the lid of which is then luted in its place, and the heat kept up; the gas generated is conveyed by a pipe into a condenser, where it is passed through water to extract the nitrous gas, and through another similar condenser for the like purpose, and thence to a chamber which contains a number of perforated trays on which is placed spent material from the generator, after having been moistened with water or steam. This acts as a purifier, and removes all nitrogen gas that may be with the oxygen, which passes to the gasometer. After the gas is all given off from a charge of material in the generator, the spent material is removed, and after moistening it with steam or water it is placed upon trays in the purifier, and after a few charges of gas have passed through it, it is removed to another chamber fitted with trays, having an opening near the bottom for a draught hole, where it is exposed to fumes (in preference from metallic iron, nitric acid placed on a vessel at the bottom of the chamber). In a short time, when the acid ceases to act, it is withdrawn, the process forming biniodide of nitrogen, which instantly takes up oxygen from the atmosphere, and converts the soda in the trays into nitrate, or nitrite of soda, which process is aided by a draught being formed by connection with a flue, or by other means. He also utilizes the residue from the manufacture of the gas by throwing the said spent material from the generator whilst hot into water, and crystallising the undecomposed nitrate of soda (and perhaps some nitrite of soda) from it, and the remaining liquor, containing caustic soda, may be further boiled down to hydrate of soda, for soap-boilers and others; the oxide of iron, or burnt oxide of zinc, will precipitate, and may be used again with other nitrates for the manufacture of gas. In this case the nitrogenous solution may have the acid from the first condenser (with perhaps a little nitric acid added), when more nitrate of soda may be crystallised from it, but he prefers exposing the spent material from the gas to a draught in a chamber with trays, or to make the caustic soda solution for sale, and retains the nitrate of soda and the oxide of iron, or burnt oxide of zinc, for generating gas.

The Oxygen Gas Company is constituted on the limited liability principle, with a capital of 100,000l., in shares of 20l. each, and the vendors have agreed to accept the whole of the purchase-money (25,000l.) in paid-up shares. It is stated that the quality of the gas has been much im-

proved since Prof. Pepper and Mr. Dugald Campbell reported upon it (it now contains about 80 per cent. of oxygen), and that on a large scale oxygen gas can be produced by Webster's process at 5s. per 1000 cubic feet.

#### REPORT FROM NORTHUMBERLAND AND DURHAM.

**DEC. 4.**—A large fleet of vessels entered the Tyne and Wear, and other north-eastern ports, during the last few days. The effect has been to reduce the rate of freights to a certain extent, but owners have proved pretty firm in their demands, and the rates are now at Newcastle 7s. 3d. per ton to the Thames afloat, and 7s. 6d. delivered on wharf. The supply of vessels has proved most seasonable for the Coal Trade, and has caused some activity in the shipment of coals for the time being; but large stocks of coal are on hand at many collieries, particularly in Northumberland, and on the Wear, too, large heaps are to be seen at many places. As we noticed lately, the collieries in this district appear to be capable of supplying any demand made upon them for some time to come, even if an increased demand should take place. Should the scheme talked of succeed for the supply of Paris with cheap coal by means of screw steamers, an impetus would certainly be given to the trade.

Among the applications to be made to Parliament during the next session for the formation of public works, none are of more importance than the scheme for the formation of docks at the Ouseburn, near Newcastle. The situation is excellent, and the natural advantages of the site highly favourable. The docks are, indeed, to a great extent already formed by Nature, and the excavations to be made will produce building stone of good quality for the erection of warehouses, &c.; and as lines of railway are also intended to be formed to communicate with the North-Eastern and Blyth and Tyne Railways, the docks, and other works contemplated will be a great convenience and acquisition to the district.

The state of the Iron Trade in the district contrasts most favourably with the coal trade, stocks being low at all the principal iron-making localities, and a good demand existing both for pig and manufactured iron of various kinds and qualities. The natural consequence is, a speculative spirit is abroad, and the establishment of new works at various points are talked of. The point most approved of by some parties appears to be near Stockton, and by others a site near Hartlepool appears to be in much favour. Several new works are projected, and many of them will, no doubt, be carried out at the most favourable points for procuring the various materials necessary for iron making. The various engines machinery, &c., are not so favourably situated as the ironworks. Many of them are very slack at present, and are employing a smaller stock of hands than usual. The consequence is some amount of distress and privation; and, altogether, a duller Christmas in prospect was hardly ever known in the North.

The following letter, in reference to the discovery of the ironstone of Cleveland, has been addressed to the *Newcastle Daily Chronicle*:

"Sir,—In your impression [see *Mining Journal* of Nov. 22] I noticed a letter from Mr. Marley, intended to refute my 'idle claims,' as he terms them. I again ask a space in your columns, as 'personal pride' always kept me to truthful statements, and I beg to say that I never attributed any blame to Messrs. Bolckow and Vaughan in the business, but to Mr. Marley alone. I believe it was in March, 1849, that Mr. Marley came to inspect the drifts, but he did not see Campbell, who, Mr. Marley asserts, made the drift, but who was crossing the seas to America at the time I was working the drifts. I am quite certain Campbell never took one stone out of the drifts. He was the man I spoke to, saying I would go to Eaton Hills to search. He said, 'I will go with you.' He did, but I never saw him but once after he left for America. At that time, Mr. Marley says the top seam is not merchantable. I beg to state the stone is much better in quality in the top than in the other seams; and some years afterwards I was in drifts in the same seam worked by Messrs. Bolckow and Vaughan at Eaton. It was in January, 1849, I obtained leave from Mr. G. Jackson, to search in his estate near the drifts, and if anyone will take the trouble to go to the place before-mentioned, he will find the main seam. Mr. Marley never saw that seam until June 8, 1850. It was in Sir John Lowder's estate that he discovered the stone, 16 feet thick, as I stated in my former communication. I saw they had taken the stone to make roads when I was there. They had cut through the seam in making improvements near the castle, so that it did not require any great power to discover it, as it was openly exposed to view. Mr. Marley says he took the contract on behalf of Messrs. Bolckow and Vaughan for Mr. Chailioner's Gaisbro' stone. No doubt he did. I never said I took it for them; but some years previously, at the time I proved the stone, I took a contract on my own account. Not being able, however, to continue working to make the affair pay for leading, I saw Mr. Bolckow and gave him the contract when at Middleboro', not that it was of use to him, but to prove that I had discovered the seam, and could work it if I had wished. I am thankful to say that my memory is good, and every statement I have made is true. If Mr. Marley had worked as long as I had done to prove the stone, he would have expected to be paid for his labour, but my exertions to prove the stone led to the discovery. If Mr. Marley takes the credit to himself, he will not trouble himself to refute my 'idle claims.' After what I have stated, I leave others to judge as to the merits of my case.—STEPHEN FOSTER."

#### REPORT FROM NORTH AND SOUTH STAFFORDSHIRE.

**DEC. 4.**—The Iron Trade continues in a tolerably satisfactory state. For plates, sheet, and angle, and other fancy bars, there is a good demand, but for ordinary merchant bars a scarcity of orders is experienced. Prices continue at the advance upon last quarter, and common bars, of fair quality, cannot be bought at less than 6l. 10s. per ton. The reports from North Staffordshire represent the demand as being quieter there. A few sales of Pig Iron are taking place, and buyers are beginning to enquire the prices for next quarter. For the best native mine hot-blast pigs 3l. 10s. is asked, being an advance of 3s. 6d., but buyers will not give the amount at present. The pig-makers, however, are indisposed to assent to a lower figure. A fair quality of pig-iron may be bought at 3l. 5s., and cinder-pigs sell freely at 2l. 15s.; some inferior makes being bought at 2l. 13s. 9d. Superior hematites are selling at 3l. 7s. 6d., and the agents talk of an advance of 2s. 6d. shortly. The great question is, "Will iron go up in January next?" Opinions on this point differ considerably, and at present there are not sufficient grounds to form an opinion which is of much value. On the whole, the probabilities at present appear against any such advance, and in that case a further rise in pig-iron is scarcely likely, as the advance obtained last quarter of 2s. 6d., has diminished the profits of the manufacturers.

The result of the coalmasters' meeting, to consider the application of the colliers near Dudley, for an advance of wages, was the passing of the following resolution:—"That as no advance in the price of iron or coal has taken place, or is likely to take place at present, the trade is not justified, under existing circumstances, in advancing the wages of colliers or ironstone miners, especially in face of the facts, that in some of the neighbouring coal districts the coal trade is greatly depressed, and that large supplies of coal from some of these districts are now being sent into South Staffordshire." The colliers have in some cases refused to go in at the old wages, but it is not thought that any prolonged strike will take place, and there are abundant supplies of coal and coke available for other districts.

The Birmingham Joint-Stock Banking Company, recently established on the principle of limited liability, has determined, at a meeting of the shareholders, to raise the capital from 500,000l. to 1,000,000l., by the creation of 500 more shares, of 1000l. each. At the Wolverhampton Police-court, on Wednesday, before Mr. Partridge, the stipendiary magistrate, John Handley, charwoman of the Stow Heath Colliery (Messrs. Sparrow) was charged on the information of Abraham Koper, a well-known informer, with having permitted two women to raise four men out of a pit on Nov. 13. Bartlett supported the information, and Mr. Dalgman, of Walsall, defended. The case was proved by the informer and his brother. For the defence, Mr. Dalgman having failed to satisfy the Bench of the validity of an objection, that in order to convict the defendant it must be proved that he was personally aware of the offence, called nearly the whole of the persons employed in the pit to disprove the case. The Bench expressed, however, a very strong opinion to the effect that not only had the case been fully established, but that it had been aggravated by the defence set up. It was a case for the highest penalty, and defendant was accordingly fined 50l. and costs.

#### REPORT FROM DERBYSHIRE, YORKSHIRE, AND LANCASHIRE.

**DEC. 4.**—Though the tendency of the money market is upwards, and the manufacturing industry of the country is unusually depressed, the Iron Trade of the past week has afforded indications of that continued gradual improvement which we have previously indicated. The question of prices for the next quarter is on the tapis in all commercial circles connected with the trade, but it is difficult thus early to indicate what steps the ironmasters may take at the quarterly meeting with regard to prices. It is admitted that the present rates do not afford anything like an equivalent remunerative return upon the cost of manufacture and the amount of capital invested. In an advancement of prices there is the risk of disturbing those peaceful arrangements which now exist between masters and men, and this is all the more to be feared on account of the recent reductions which have been made in nearly all works of any magnitude. The demand for bars, plates, and rails is active, and should even a small proportion of the 280 applications to Parliament for new lines and railway extensions be granted, we shall certainly have a brisk trade in railway iron-work next year. The demand for rails for renewals of permanent way is now much larger than formerly, inasmuch as the directors of railways have found it to be much cheaper to spend 1000l. in renewals rather than pay 5000l. as the costs and penalties arising from accidents the result of a defective line. The Coal Trade is improving throughout the whole of these counties, the demand, saving that for manufacturing purposes, being much greater than at this period last year. All the colliers are working full time, or nearly so, and though they are in receipt generally of good wages, the distress which visited them during the summer has left them only in a moderate position, socially speaking. The coal and ironmasters are showing their sympathy for the distressed operatives of Lancashire. Not only are the masters themselves subscribing liberally, but they are organising small fortnightly subscriptions amongst the men, which in the aggregate will amount to a very considerable sum. We would suggest that presents of coal would be very acceptable during the present winter, and we are inclined to hope that the railway companies would either convey them free, or merely charge a nominal sum.

The alarming boiler explosion which occurred at the Midland Ironworks this week has created quite a terror amongst the inhabitants of the district. The concern has only just come out of an arrangement with the creditors, and now a loss has been entailed, variously estimated from 6000l. to 10,000l. This does not include the sacrifice which will have to be made during the time necessary for repairing the damage done, which will be work for several months to come.

Seven men were killed, between twenty and thirty others were seriously injured, while a large amount of property was destroyed, by a boiler explosion, which occurred at the Midland Ironworks, at Macclesford, near Sheffield. This dreadful calamity is supposed to have been caused by a deficient supply of water in the boiler, but as the matter will

be scientifically treated in your report of the Steam-Bolier Association proceedings, shall anxiously await the appearance of that document, rather than hazard any premature remarks on the unfortunate calamity.

On Monday the annual meeting of the Water Grove United Mining Company was held at the Black Rock Hotel, Castle-street, Sheffield, when the report of Mr. Mackenzie (agent of the company), respecting the present position of the mine, and their working during the past year, was read, and it being considered satisfactory, was ordered to be entered upon the minute book of the company. The financial statement of the company showed that during the year ending Nov. 12, 1862, the amount received by payment of calls had been 5991. 10s.; and by bank interest, 8l. 9s.; making 6000. 10s. total receipts. The total expenditure had been 4751. 10s. 11d.; thus leaving a balance in the bank of 1249. 10s. 1d. It was resolved that the financial statement be approved, printed, and circulated among the proprietors.

The Eyam Mining Company held their half-yearly meeting, on Monday, at the Black Rock Hotel, Castle-street, Sheffield. Mr. T. J. Parker was elected to the chair. The meeting was not convened for the consideration of the financial affairs of the company, but for the purpose of learning from the committee of management, and from the captain of the mine, the present state of the workings. The condition of the mines, a large yield of ore from some portion of them, and their prospects were favourably reported, and received as perfectly satisfactory by the meeting, although there were some several veins from which the quantity of ore realised was below the amount expended in working them. On the whole, however, the state of the company's affairs was deemed most promising by the shareholders, among whom great unanimity and good feeling prevailed, and a vote of thanks was passed to the chairman and committee.

The local stock and share markets have been well attended, and a tolerably good business done in gas, water, and bank shares. Few mining stocks have been in request, a distress in Lancashire, as well as local depression, appears to paralyse speculation.

A scheme by which it is proposed to substitute the present drops of the Great Northern Railway with a much more advantageous plan for saving is now engaging the attention of the leading colliery owners of South Yorkshire, inasmuch as its adoption would be attended with many advantages to them. By the authority of the directors of the South Yorkshire Railway a meeting of the plan has been exhibited at their offices, Hallgate, Doncaster, and on Saturday several of the directors and the officials inspected it. Mr. Pimmo, a gentleman intimately connected with the coal trade, explained its working, and it seems that the kinds of coal at least 14 or 15 per cent., but the proposal now made would reduce it to only 3 or 4, and in the case of other descriptions still lower. It is intended that the quality shall occupy a particular line of railway, and the drops will be direct from the trucks to the sacks down a screen separated in the middle, by which means the filling will take place in two sacks at once. As each truck is emptied it will be of an easily revolving turntable, run under a shaft to a line set apart for empty wagons, and thus much of the inconvenience that now arises would be obviated. The drops could go on from wagons on each line, and when emptied be readily removed. The colliery managers and proprietors have expressed their approval of the scheme, and the chief advantages of which would be that wagons would not be detained in London by a fluctuating demand, but could be emptied and sent off, and all kinds of coal would almost delivered to the consumer in the same state as when loaded at the pits, a breakage which occurs at all the railway depots in London being avoided.

#### REPORT FROM MONMOUTH AND SOUTH WALES.

**DEC. 4.**—The more favourable winds which prevailed at the commencement of the week have brought a great many ships to the different ports, and the result has been a considerably increased activity in the Coal Trade. The trade of the coal ports for November has, upon the whole, been satisfactory, taking into consideration the condition of the country generally. The iron exports also will, do doubt, show an increase, compared with the corresponding month of last year. Several cargoes have of late been sent to the once United States, which is rather a recurrence during the past 12 months. There is no material alteration in the report as regards the state of matters at the various collieries and ironworks. Nearly all the ironworks are now engaged in clearing the orders on the books, which are sufficient to keep them going for some time to come. The orders have come in rather slowly of late, as is usually the case at this time of the year, and in consequence of this slight falling off in the demand, prices have shown a tendency to decline. Rails can now be purchased at 2s. 6d. per ton less than was the case a month or six weeks since. There is no positive decline in merchant bars, but in consequence of the indifferent demand makers are disposed to some reduction. Various reasons might be assigned for this state of things, amongst which may be mentioned the closing of the Baltic Russian ports for the winter months, and the unwillingness of buyers to make contracts for more than their actual requirements, in consequence of the uncertainty as regards the termination of the American war. Since the considerable arrival of vessels already referred to the coal trade has improved, and more activity is to be seen at the collieries. If the weather continues favourable, the collieries will, without doubt, be kept fully employed.

The Risca Collieries, as will be seen by an advertisement in another column, are to be sold, "without reserve," by Messrs. Fuller and Horsfall on Dec. 16. This is the second time that the property has been offered for public competition since the affairs of the company have been managed by the Colliery, but as there is to be no reserve price on the present occasion, it is evident that the works will be sold. Mr. John Russell, the original lessee, holds a lease on the property for about 18,000l., and it is generally believed that he, in connection with another gentleman well known in the iron and coal trade, will be the purchaser. The Pontnewydd Tin Works are also in the market, and will be offered for sale on Dec. 18. These works are situated within a few miles of the port of Newport, and are managed by the late Mr. Conway James for a number of years.

At the Bristol Bankruptcy Court, on Monday, the meeting to make a call on the contributors of the Cardiff Preserved Coal and Coke Company (Limited), was held. Henderson appeared for the official liquidator, and Mr. Peas represented Mr. Pugh of London. In consequence of the appeal now going on before the Lord Justices, the meeting was further adjourned, to await the issue of that appeal.

A number of men employed at the Dowdalls and Rhymney Ironworks have returned from Russia, where an ironwork is about to be started. The wages which these men are to receive average from 12l. to 25l. per month. On Saturday last an inquest was held before Mr. Strick, coroner for the Swansea district, touching the death of George Jones, a collier employed at the Carnegiedy Colliery. Deceased was engaged with a collier named Thomas Williams in cutting coal, when latter advised that they should not proceed further without supports. Deceased, however, wished to go on, and said that if Williams was afraid he should change sides with him. In about five minutes afterwards a piece of coal fell on the deceased, and he was killed instantaneously. The jury returned a verdict of "Accidental Death."—Last week a young lad employed at the Pantywaln Mine, Dowdalls, met with his death by a stone falling upon him. An inquest was held on the body, and the jury returned a verdict of "Accidental Death."

The *Swansea and Glamorgan Herald* thus describes a patent just obtained by W. Davies, Llanelli, for improvements in puddling, rolling, and re-heating furnaces:—"The improvements are, in place of employing a horizontal grating of fire-bars, bars of which are laid in a direction from front to back of the fireplace, which the most generally used in furnaces—inclined gratings of bars. By this invention the half of the grating is inclining from the other side, so that the low point is in or about the middle of the fireplace, and the fire-bars are, as heretofore, in a direction from front to back of the fireplace." The trial of Mr. Davies' patent invention (of which a brief description has already appeared in the *Mining Journal*), at the Dowdalls Ironworks, has not yet come off, in consequence of the accident which occurred about a fortnight since, and other adverse circumstances. It is expected, however, that the interesting event will take place in a few days, and result shall be duly recorded in the columns of the *Journal*.

Mr. Thomas Evans, of Cross-street, Abergavenny, has patented some improvements in anti-grilles, and Mr. R. K. Fenson, Ferryside, some improvements in apparatus for warming railway carriages.

Mr. William Owens, of the Branch Du Quarry, has had a testimonial presented to him as a mark of esteem and regard, on his leaving the management. The arrivals at Swansea include the Corridor, from Caldera, with 600 tons of all ore, for H. Bath and Sons; Darling, from Concombo, with 223 tons of regulus ore, 190 tons of copper ore, for Charles Lambert; Delaware, from Caldera, with 534 tons copper regulus and 15 tons of silver ore, for Henry Bath and Sons; Adale and M. from Nantes, with copper ore.

**THE POST OFFICE LONDON DIRECTORY.**—The sixty-fourth annual edition of this well known and extremely useful work—the Post Office London Directory for 1863—has just been issued, and is in every respect equal to any of the former volumes. The accuracy is as great as ever, and information is corrected to so late a date that it is difficult to conceive of any further improvement could be made. In the edition for the year several important additions have been made, and the work has increased in size, the volume containing 2526 pages, whilst that before has no less than 2574. The character of the work is so well known to describe the contents would be superfluous; but we may state that principal features of novelty are the lists of vestry clerks, which have been added in the City and Clerical Directory, and the appending to the lists of the places in the Conveyance Directory of the population, as shown by the Census of 1861, an analysis of which has only just been published—we can say no more in praise of the work than we have already said—it is entitled to a place in every office—we will only add that, as the book has now grown very bulky, the publishers have arranged that those who wish it can be supplied with it bound in two volumes.

**THE LAW OF MINES AND MINING COMPANIES.**—Under the title of "Practical Treatise on the Law Relating to Mines and Mining Companies," a well-arranged little volume has just been issued by Mr. W. ARUNDELL (through Messrs. Lockwood and Co.), the object of which is to supply information which, whether placed in the hands of a lawyer or a layman, might be found alike serviceable. Mr. Arundell has confined his observations to the law of mining, and had it not unfortunately happened that he overlooked an epitome of the Companies Act, 1862 (which repeats and re-enacts the whole of the provisions of the Companies Act, 1844) he would have been a valuable epitome of the law of mining. The book would have been a valuable epitome of the law of mining, and had it not unfortunately happened that he overlooked an epitome of the Companies Act, 1862 (which repeats and re-enacts the whole of the provisions of the Companies Act, 1844) he would have been a valuable epitome of the law of mining. 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**THE AUSTRALIAN MINING COMPANY.**—Notice is hereby given, that an EXTRAORDINARY GENERAL MEETING of the shareholders of this company will be HELD at the London Tavern, Bishopsgate-street, on MONDAY the 8th day of December next, at One o'clock P.M., to receive a report from the directors.  
G. PALMER, Chairman;  
E. WALFORD, Sec.  
210, Gresham House, E.C., November 25, 1862.



**NOUVELLE MONTAGNE COMPANY.**—The SECOND PAYMENT OF THE DIVIDEND OF 1861 will be PAID AFTER the 31st of DECEMBER NEXT, viz.:—25 frs. against delivery of the Coupon No. 10 for whole shares, and 5 frs. for fifth of shares. The payments will be made, at—  
 Verriers ..... At the Office of the Company.  
 London ..... By Messrs. C. DEVAUX and Co.  
 Paris ..... By Messrs. ROUGEMONT DE LOWENBERG.  
 Bruxelles ..... By Messrs. J. P. MATTHIEU and Fils.  
 Liege ..... By Messrs. NAGELMACKERS and Fils.  
 VICTOR SIMON, Le Directeur Général de la Société.  
 Verriers, the 15th November, 1862.

**THE SOVEREIGN GOLD MINING COMPANY (LIMITED).**  
 Completely registered.  
 GOLD DISTRICT, DOLGELLY, WALES.  
 Capital £50,000, in 50,000 shares of £1 each.  
 5s. per share deposit on application, and 5s. on allotment.  
 OFFICES,—10, OLD JEWRY CHAMBERS, LONDON, E.C.

Prospectuses, giving plans, assays, &c., may be obtained of the broker, FREDERICK EVERITT, Esq., 17 and 18, Royal Exchange, London, E.C.; or of the secretary, at the company's offices.

**TREGURTHA DOWNS AND OWEN VEAN CONSOLS MINING COMPANY (LIMITED).**  
 ST. HILARY AND PERRANUTHNOE, CORNWALL.  
 Capital, £40,000, in 16,000 shares, of £2 10s. each.  
 Deposit, 5s. per share on application, and 15s. on allotment.

**BANKERS.**  
 Union Bank of London, Princes-street.  
 Messrs. Vivian, Grylls, Kendall, and Co. Helston.  
 Messrs. Bolitho, Sons, and Co., Penzance.

**SOLICITORS.**  
 H. Grylls Hill, Esq., 17, Barge-yard Chambers, London.  
 Messrs. Grylls, Hill, and Hill, Helston.

**LONDON MANAGERS.**—Messrs. Dunsford and Ranken, 9, Broad-street-buildings.

#### ABRIDGED PROSPECTUS.

This company (incorporated under the "Companies Act, 1852," with limited liability) is formed to work the Tregurtha Downs and Owen Veau Tin and Copper Mines, which are situated in one of the richest mining districts in Cornwall, being surrounded by mines which have yielded copper and tin, producing from £8,000,000 to £10,000,000 sterling. The returns of copper ore alone from some of these mines are as follows:—

Wheal Fortune ..... £370,000 | Wheal Speedwell ..... £167,000  
 Old Wheal Neptune ..... 400,000 | Marazion Mines ..... 161,000  
 Wheal Friendship ..... 261,000 | Wheal Charlotte ..... 151,000  
 Pheasanting ..... 283,000 | Wheal Darlington ..... 119,000

The same mines have yielded large values of tin, of which there are no official returns; but the richness of the district in tin is proved by the neighbouring mine, Wheal Grylls, having sold, in the quarter ending in September last, 75 tons, producing £4794.

TREGURTHA DOWNS has been opened to a depth of only 60 fms., where it proved to be increasing in richness, and although little has been done below the 35, the mine has yielded £165,000 worth of ore, and large quantities will be raised directly the mine is drained. It contains many tin and copper lodes, and a rich one of silver-lead, and the set is traversed by elvans and cross-courses.

Owen Veau has been opened only 70 fms., and little has been done below the 50; but the mine has, nevertheless, returned £250,000 worth of copper ore, and a lode now standing in the 40 and 50 fms. levels would be readily set at 3s. in £1 tribute.

When these mines made the above returns, tin was worth only half its present value, and copper was 40 per cent. cheaper than it is now.

The tedious and unproductive, but necessary, work—viz., sinking shafts and driving levels—is already done, so that both mines will yield produce and profits at once, for the 50 and 60 fms. levels have not yet been brought under the productive ground, but which may be done as the mines are being drained, and large quantities of tin and copper be raised immediately.

The ore, both of tin and copper, are very rich. It is shown by the reports that they would be readily worked at a tribute of only 3s. to 4s. in £1.

The same lode run through both sets, which can be worked together, to much greater advantage than separately.

There are parallel lodes in both mines, which have not yet been worked at all, but which will, no doubt, be equally productive, and which may be easily worked by cross-cuts.

Both mines are in the killas, near to its junction with the granite, which is the most productive stratum, and cheapest for working.

The dues are very low, being only 1-20th, instead of 1-10th, as formerly. The company has secured 21 years' leases of the mines, with all the valuable work already done, at scarcely one-third of its cost, and with power of renewal on same terms.

The reports are very numerous and favourable, many of them being from miners of the highest reputation, viz.:—  
 W. Roberts and J. Daw, of Carh Brea and West Basset Mines.  
 J. Curtis, of St. Austyn and Grylls.  
 B. Osborne, of Wheal Grylls.  
 A. Bennett, of Tolvaed.

John Roberts, Wm. Bishop, Wm. Oats, James Thomas, J. Vivian, B. Grundy, &c. Detailed prospectuses, with maps, plans, reports, forms of application, and all information may be obtained of Messrs. Dunsford and Ranken, No. 9, Broad-street-buildings, and will be forwarded by post on application.

A geological map of the district, also plans and sections, showing the workings, copied from the originals in the Museum of Geology, Jermyn-street, may be seen at the managers'.

**THE ROARING WATER MINING COMPANY (LIMITED).**

Incorporated pursuant to the Joint Stock Companies Acts, 1862.

Capital, £18,000, in 6000 shares of £3 each.  
 10s. to be paid on application, and 10s. on allotment.

**DIRECTORS.**  
 Sir JAMES DOMBRIN, Monkstown, and 20, Molesworth-street, Dublin.  
 Colonel BUSH, 55, York-terrace, Regent's Park (Director of the Oriental Inland Steam Navigation Company).  
 CHARLES T. HAWKINS, Esq., 12, Broad-street, Oxford (Director of the St. Just Mines).  
 WILLIAM O'GILVIE, Esq., Cashion-court, Old Broad-street (Director of the St. Just Mines).  
 Captain PAUL, Queen's-road, Baywater (late of the Knockmahon Mines).  
 H. CHURCHILL, Esq., Deddington, Oxfordshire (Director of the Strand Hotel Company).

**BANKERS.**—London and County Bank, Lombard-street.

**SOLICITORS.**  
 Messrs. Meyrick and Gedge, 4, Storey's Gate, Great George-street, Westminster.  
 AUDITORS.—Messrs. Cooper Brothers, public accountants, George-street, Mansion House.

**BROKERS.**  
 Messrs. Webb and Gedge, 8, Finch-lane, Threadneedle-street, London.  
 Messrs. J. and J. Stephens and Son, 44, Dame-street, Dublin.  
 Robert M'EWEN, Esq., Duce-buildings, Bank-street, Manchester.  
 MANAGER.—Mr. Thomas Cooper Smith.

OFFICES.—5, WARREN COURT, THROGMORTON STREET, CITY.

The object of this company is to work the copper mines of Roaring Water, situated in the parish of Aughadown, in the barony of West Carberry, county of Cork, a district well known among mineralogists as being rich in mineral deposits. The set extends over 1 1/4 mile in length, and 3/4 of a mile in breadth, and is held for a term of 31 years from July last, at a royalty of 1-18th, with a clause for renewal, on payment of a comparatively small fine at the end of that period, for the same term.

The promising character of the mines proposed to be worked by the present company fully warrants the expectation that early returns will be realised; there are 19 well-defined lodes upon the set, composed principally of yellow and peacock copper ores, rich specimens of malachite, ferric quartz, and gossan of the finest description, from which many tons of rich ore have been taken, which on assay have been found to contain a large proportion of silver, and strong traces of gold, and as the geological formation is identical with that in Wales, from which so much gold is being now extracted, and from the reports of Capt. Paul (see appendix), there is every reasonable ground to expect gold will be found on this property. These lodes beyond all doubt are a continuation of the rich veins of copper now working with such great promise and success at the Schull Bay, Cappagh, and Ballycumisk Mines, all of which there can be no reasonable doubt but are a continuation of the Berehaven lodes. The latter mines are said to have yielded from their commencement copper ore of the value of £2,000,000 sterling. It is well known that the quality of the ore raised there is of a far higher standard (nearly double) than the average produce of the Cornish ores; this may be tested by a reference to the Swansea sale list.

A large amount of capital has been expended on the Roaring Water Mines by parties who were unable to prosecute them in depth from want of means; this is the key-note of success in Ireland, as well as in Cornwall, as clearly shown by the workings of Berehaven, Holyford, Knockmahon, Ballycumisk, and the Wicklow Mines, which are sunk to depths varying from 60 to 200 fathoms, and yielding increased quantities of ore the deeper they are worked; they continue to pay large dividends regularly.

The reports annexed are from men of long practical experience, their testimony as to the highly-promising character of the property, and the great local advantages by which it is surrounded will be read with interest, and leave nothing to be urged by the directors, except an assurance of their strong confidence as to its value; this assurance is further supported by the results of the assay they have obtained of the ores from the various levels—viz., the yellow ore, which may safely be considered an average sample of this class ore, 14 1/2 per cent., and the purple ore 55 and 58 1/2 per cent. These results are so satisfactory that no doubt is left on their minds that this property will bear comparison with any of the rich mines opened in the district; and as several thousand pounds have already been expended in opening and testing the various lodes, these works will be of the greatest value to the company, and fully warrant the conclusion that early and profitable returns may be relied upon.

The company has entered into a most favourable arrangement for the purchase of the property—viz., for £6000. The vendor has consented to take £5000 in shares, and £1000 in cash, thus proving his confidence in the success of the undertaking.

The capital of the company is fixed at £18,000, in 6000 shares, of £3 each; it is estimated that £2 per share will be ample to place the mine in a profitable state.

The company having been registered with limited liability no shareholder can, under any circumstances whatever, be made responsible for a greater amount than that of the shares to which he subscribes.

There are no special Articles of Association, Table A, under the Companies Act, 1862, having been adopted in its entirety, except clause 27, which has been altered, so as to ensure the attendance of a sufficient number of shareholders, to enable business to be transacted at the meetings of the company.

To insure subscribers from any loss which may arise should a sufficient number of shares not be subscribed for, the directors bind themselves to return the whole of the deposit money, unless at least one-half of the shares, exclusive of those to be paid to the vendor, are taken.

A considerable portion of the capital has been already subscribed.

Applications for shares to be made to the bankers, directors, solicitors, brokers, and the manager, at the office of the company, where prospectuses and forms of application may be obtained; also reports on the mines from Capt. HENRY THOMAS; Capt. PAUL, late of the Knockmahon Mines; Capt. CARTHEW, of the St. Just Mines; Capt. MARTIN BOURKE, of Dublin; and Capt. JAMES HOSKING, late of the South Cork Mines.

#### In Chancery.

#### UNRESERVED SALE.

#### IMPORTANT FREEHOLD AND LEASEHOLD COLLIERIES, SOUTH WALES.

**MESSRS. FULLER AND HORSEY** are instructed to SELL BY AUCTION, on Tuesday, December 16, without reserve, at Twelve o'clock, at the Auction Mart, London, in One Lot, by order of His Honour the Master of the Rolls, and with the concurrence of the mortgagees, the very VALUABLE COLLIERIES and OTHER MINERAL PROPERTIES and SURFACE LANDS, FREEHOLD, COPYHOLD, and LEASEHOLD, belonging to the RISCA COAL AND IRON COMPANY, situated about six miles and three-quarters from Newport, a safe and commodious port on the Usk, near its junction with the Severn, in the county of Monmouth.

There is direct railway communication between the works and the docks and wharf at Newport, and vessels of upwards of 1000 tons burden can enter the docks at Newport, or load along the side of the wharf.

The COAL FIELDS extend under an area of 1394a. 1n. 37r., leasehold, from Lord Tregar, at rents and royalties the details of which appear in the particulars, and 249a. 2n. 10r. freehold and copyhold.

The SURFACE LANDS comprise—The RISCA FARM, 138a. 0n. 11r., with manager's house and cottages; BUCK FARM, 73a. 1n. 28r., with LIMEKILN and cottage, agents' houses, office, workmen's cottages, &c., held under beneficial leases.

There are FOUR SEAMS or VEINS of COAL, extending over the principal portion of the entire area, of the thickness of 28 ft. in the aggregate, and known as the ROCK VEIN, the BIG VEIN, the BLACK VEIN, and the SUN VEIN.

The BLACK VEIN is the most valuable. It is a first-class steam coal, and has the reputation on the market of being the best coal for exporting to the several foreign coaling stations in warm climates. The Royal West India Mail Packet Company have shipped it to their foreign coal depots for upwards of 20 years. The thickness of the seam is 8 ft. 10 in., and the quantity at this time actually raised is at the rate of 80,000 tons per annum.

The ROCK VEIN is a seam of coal of an average thickness of 4 ft. 6 in., and is also used by the Royal West India Mail Company; the quantity now actually raised is at the rate of about 80,000 tons per annum.

The BIG VEIN is well adapted for making coke, or for general manufacturing purposes; the thickness of the seam is 12 feet.

The SUN VEIN is from 2 ft. 6 in. to 3 ft. in thickness, and has a good roof; it is adapted for a house coal. The general arrangements of the workings are good, many improvements both in the modes of working and ventilation having been recently adopted, the result being a material increase in the quantity of coal raised, and a proportionate diminution of the cost of raising. Other improvements suggested by the Government Inspector and the arbitrator are in progress. The plant is all in efficient working order.

Attached to the collieries are FIRE BRICK WORKS; also STONE QUARRIES and LIMEKILNS. Ironworks could be advantageously introduced, as there is a rich vein of limestone underlying the seams of coal, and there is limestone in abundance.

There are also SEVENTY-NINE COTTAGES for workmen, residences for clerks and overseers, suitable offices, and a shop and warehouse.

The manager's residence and some of the farms are in hand, from which a supply of hay and corn for the horses is obtained. Other farms are let; the total amount of rentals received by the company is £290 6s. per annum.

With the sale of the colliery will be included the COMPANY'S INTEREST in the LARGE and COMMODIOUS WHARF at NEWPORT, on which are laid three lines of tram-rails communicating with the Western Valleys Railway, and running down to three loading stages on the river; also NINE COALS SHEDS in the DOCKS at SOUTHAMPTON, held at a rental of £140 per annum.

Surveys and highly favourable reports have been made by eminent mining engineers. The works may be inspected, and plans and particulars and other information obtained of Messrs. FULTON, SAWELL, and LIGHTFOOT, solicitors, 23, John-street, Bedford-row; Messrs. CROWDIE and MAYNARD, solicitors, Coleman-street; Messrs. CUTLER and TURNER, solicitors, 29, Bedford-square; L. WYNN, Esq., solicitor, 46, Lincoln's Inn-fields; Messrs. SIMPSON and NORTH, solicitors, Liverpool; Messrs. COLEMAN, TURQUAND, YOUNG, and Co., Tokenhouse-yard; at the Westgate Hotel, Newport; at the Cardiff Arms, Cardiff; at the principal Inns at Bristol and Gloucester; at the Auction Mart; and of Messrs. FULLER and HORSEY, Billiter-street, London, E.C.

GEORGE WHITING, Chief Clerk.

**SMELTING WORKS FOR LEAD AND ZINC ORES, NOW IN FULL OPERATION, IN WALES.—TO BE DISPOSED OF, AN OLD ESTABLISHED BUSINESS, WITH PREMISES AND PLANT, adapted for smelting lead and zinc ores, and for the manufacture of sheet lead and lead pipe to the extent of about 50 tons per week; also for delivering lead ore. The works are most desirably placed on a line of railway, and with water communication. About £15,000 to £20,000 will be required.—For further particulars, apply to Messrs. FULLER and HORSEY, 13, Billiter-street, London, E.C.—December 5, 1862.**

**MINE MATERIALS FOR SALE AT HUCKWORTHY BRIDGE MINE, IN THE PARISH OF SAMPFORD SPINEY, DEVON.**

**MESSRS. SKARDON AND SONS** will SELL BY AUCTION, on Wednesday, the 17th of December, 1862, all the VALUABLE PLANT of the above mine, consisting of—  
 A WATER-WHEEL, 40 ft. diameter, 4 ft. abreast, with iron rings, cylindrical iron axle, sockets, cranks, saddles, gun-metal bearings, and a DRAWING MACHINE attached;  
 A powerful CORNISH CRUSHER and driving gear. The crusher has all the modern improvements, combined with strength, and may be seen at the Old Crowndale Mine, near Tavistock. And the following pump-work:—

18 fms. 9 ft. 11 in. pumps.  
 12 in. plunger pole, stocked.  
 13 in. case.  
 11 in. doorpiece and door.  
 1 H-piece ditto and door.  
 stuffing-box and gland.  
 1 matching.  
 30 fms. of wood rods and side plates.  
 10 fms. 11 in. ditto.  
 2 sword pieces, with loops and braces.

Quantity of flange bolts and nuts, rings and bucket rods, capstan and shears, capstan rope (nearly new), and other rope; main shaft bob, angle bob, 50 fms. 2 1/4 in. rods, 20 fms. 2 in. hammered iron joints, 55 pulleys, lot of railway iron and saddles (nearly new), tram wagons, 3 machine kibbles, 250 fms. best 3/4 chain, 50 fms. 1/2 in. ditto, 50 fms. iron bar ladders, water barrels, whin kibbles, shaft rods, 50 fms. casings and divisions, yokes and glands; 2 beams and scales, smiths' bellows, stocks, taps and dies, smiths' tools, a quantity of miners' tools, carpenter's bench, chest, &c.; 8 wood sheds, 10 wheel and handbarrows, air pipes, tackle rope, grinding stone and frame, a lot of useful iron, old cast and wrought-iron, bucking plates and hammers, dressing sieves and riddles, blocks, nails, grease, blower and cast steel, lifting jack, 24 brasses, powder, leather, Norway timber and plank, the account-house furniture, &c.

The mine is situated about one mile from the Horrabridge station, on the South Devon and Tavistock Railway.

The auctioneers can confidently recommend the above materials, from the fact of their only having been used a very short time, and are in good condition.

May be viewed on application to Capt. Skardon, on the mine.  
 Refreshments at Twelve o'clock, and the sale to commence at One o'clock.  
 Dated Plymouth, December 4, 1862.

**RAILWAY CONTRACTOR'S PLANT FOR SALE, BY AUCTION.**  
 Mr. RYSON having completed his contract upon the Border Union Railway,  
**MR. GEORGE HARDCASTLE** has been favoured with instructions to prepare for early SALE, BY AUCTION, at SHANK END and WHITEHOPE, on the Border Union Railway.

THE VALUABLE CONTRACTOR'S PLANT, comprising SEVERAL HUNDRED TONS of MALLEABLE IRON RAILS, some THOUSANDS of SLEEPERS, upwards of THREE HUNDRED EARTH WAGONS of various construction, GWYNNE'S CENTRIFUGAL AND OTHER PUMPS, wagon and other IRONWORK, WROUGHT IRON and CAST METAL SCRAP, a large quantity of barrow plank, FORTY MALLEABLE IRON SKIPS, FIVE DERRICK CRANES, smiths' tools, bellows, anvils, vices, &c. PORTABLE AND OTHER HORIZONTAL ENGINES, of 6, 9, 12, 16, and 25 horse power; mortar mills and edge stones, several sets of friction gear, round and flat wire-rope, hemp crab rope, TWENTY-FIVE strong CARTS, several TIMBER CARRIAGES, TWENTY SETS of CART HARNESS, EIGHTY SETS of TRACE GEAR, ONE HUNDRED AND FIFTY WOODEN HUTS and SHEDS, extra STEAM BOILERS, saw bench, belt and saws, four travelling cranes, numerous wheelbarrows, straw cutter, chaff cutter, corn crusher, &c.

Catalogues are in course of preparation.  
 The Sunderland Sale Office, Sunderland, November 5, 1862.

#### LLANTREISANT, GLAMORGANSHIRE.

**TO COLLIERY PROPRIETORS, CAPITALISTS, AND OTHERS.—TO BE DISPOSED OF, BY PRIVATE CONTRACT, THE LEASE OF THE COAL, IRONSTONE, AND OTHER MINERALS UNDER about TWO HUNDRED ACRES of LAND, situate in the parish of LLANTREISANT, containing the well-known LLANTWIT SEAMS, worked by Messrs. Powell and Sons on the adjoining estate. The branch railway connecting the Taff with the South Wales is now being constructed, and passes through the property, connecting it with the Taff Vale and South Wales Railways.—For further particulars, apply by letter, post-paid, to Mr. M. GILDROY STEWART, mining engineer, Warrley, near Bristol.**

**TO COLLIERY PROPRIETORS, CAPITALISTS, AND OTHERS.—TO BE DISPOSED OF, BY PRIVATE CONTRACT, THE COAL, IRONSTONE, AND OTHER MINERALS, UNDER the ESTATE of the late George Silvester, of West Bromwich, Staffordshire, consisting of about FIFTY ACRES. An adjacent colliery has worked up to less than 100 yards of the estate, the seam being very thick, and of superior quality. The Great Western Railway runs through the estate, and it is within a few hundred yards of the canal.—For further particulars, apply to Mr. THOMAS SILVESTER, West Bromwich; Mr. BARTLEY, solicitor, 25, Waterloo-street, Birmingham; or Mr. A. S. SILVESTER, 51, St. Paul's-square, Birmingham; and Mr. J. B. SILVESTER, West Bromwich.**

**COLLIERY TO BE LET.—THE PILLOWELL LEVEL COLLIERY, DEAN FOREST, TO BE LET UPON LEASE, plant to be taken at a valuation. The sale comprises about 100 acres of the Yorkley vein of coal, the best house coal the Forest produces, situated three miles from the port of Lydney, with which it has direct connection by railway. The colliery has been in work very lately. Sales about 70 tons per day, capable of very great extension.—For further particulars, apply to Mr. D. DAVIES, Lydney, Gloucestershire.**

#### TRURO, CORNWALL.

**HIGHLY DESIRABLE FAMILY AND COMMERCIAL HOTEL AND POSTING BUSINESS FOR SALE.—TO BE DISPOSED OF, BY PRIVATE TREATY, with immediate possession, all that EXCELLENT and WELL ESTABLISHED HOTEL AND POSTING BUSINESS, which has been for many years successfully carried on at the RED LION HOTEL, TRURO, CORNWALL, and which is now offered in consequence of the late proprietor's departure.**

The business presents an opportunity rarely to be met with, Truro being situated in the midst of a large mining and agricultural district, and being also the present terminus of the Cornwall Railway.

For further particulars, and to treat for the same, application must be made to Mr. HEARLE COCK, solicitor, Truro.—Dated Truro, December 3, 1862.

#### TO IRON MANUFACTURERS, IRONFOUNDERS,

BOLT MAKERS, and TIMBER MERCHANTS, &c.—The Directors of the SOUTH-EASTERN RAILWAY COMPANY are PREPARED TO RECEIVE TENDERS for the FOLLOWING PERMANENT MATERIALS, viz.:—  
 SIXTEEN THOUSAND FOUR HUNDRED TONS of DOUBLE-HEADED RAILS.  
 THREE THOUSAND SIX HUNDRED TONS of CHAIRS.  
 SEVEN HUNDRED AND EIGHTY-FIVE TONS of FISH PLATES.  
 SIX HUNDRED AND THREE TONS of BOLTS, NUTS, and WASHERS.  
 ONE HUNDRED AND FORTY TONS of SPIKES.  
 TWO HUNDRED AND FIFTY TONS of SLEEPERS.

Specifications, section of rail, and patterns, may be seen at the offices of the company's engineer, London Bridge Station; and tenders to be addressed to the Secretary, endorsed "Tender for Permanent Materials," to be sent in on or before Wednesday, the 17th of December next.  
 London Bridge Station, S.E., November 27, 1862.

**SLATE QUARRY FOR SALE.—TO BE DISPOSED OF, BY PRIVATE CONTRACT, THE FEE SIMPLE (including plant and stock) of the VALUABLE DEPOSIT OF SLATE, known as the GALT-Y-LLAN SLATE QUARRY, near LLANBERIS, CARNARVONSHIRE, and situated immediately facing the well-known quarries of the late Thomas Ashtown Smith, Esq.**

The quarry has been opened at considerable cost by the proprietor, is now in good working order and paying cost, and by a very small additional outlay of capital may be made to yield large and immediate returns.

For further particulars, apply to Mr. F. A. LEGG, 22, Sackville-street, Piccadilly, London; or to Mr. G. MURDOCH, Menai Bridge, Bangor.

**A SLATE QUARRY in FESTINIOG, situated within a few hundred yards of the railway, TO BE SOLD.—Apply to Mr. ROBERT LEWIS, Wynne-street, Carnarvon.**

**ADVANTAGEOUS OPPORTUNITY TO SOLICITORS AND OTHERS DESIROUS OF FORMING A JOINT-STOCK COMPANY.—THE OWNER of a SILVER-LEAD and BARTYES MINE is DESIROUS of SELLING it to a company. The quantity of barytes laid open is estimated to be capable of yielding a profit of from £50,000 to £100,000, or £2000 to £10,000 a year, if ground and brought into the market. The lead lode has been found rich, and a mine recently opened on the same lode is now paying about £1 per annum dividend on £1 laid out. The roads, adits, levels, shafts, &c., have cost about £7000. The barytes mine would be sold separately, reserving the lead if wished.—Apply to Mr. J. O. HARRIS, broker, 24, Southey-street, Exeter.**

**LEAD MINES IN LANARKSHIRE.—TO BE LET, the LEAD MINES of GLENDOWRAN, OVER ABINGTON, and LETTERSHAW, in the parish of Crawford-John, and county of Lanark. These mining grounds are in the neighbourhood of Leadhills, and range from one to five miles from the Abington station on the Caledonian Railway, which gives ready access to market, and facility of getting coal.**

Glendowran Mines were opened in 1766, and during the period they were worked excellent lead was obtained and smelted.

The working, it is believed, was stopped from want of means, and power to drain the ore; but now, under modern improvements of steam-power, water-pressure machinery and economy in fuel, and facility of carriage to all parts of the kingdom by railway, these mines are deserving the attention of capitalists. Lead has also been got in trials at Abington and Lettershaws.

For further particulars, apply to JOHN RONALD, S.S.C., Hill-street; or Messrs. GEDDES, mining engineers, Sandwick-place, Edinburgh.—Edinburgh, Nov. 20, 1862.

**COLLACOMBE MINE, NEAR TAVISTOCK, DEVON.—TO BE SOLD, a superior 30 in. PUMPING ENGINE, in excellent condition, 9 ft. stroke in cylinder and 8 ft. in shaft, with a 10-ton BOILER complete. The distance is about three miles from the railway station at Tavistock, and four miles from the Morwellham Quay on the River Tamar.—Application to be made to Captain RICHARDS, Devon Great Consols Mines, Tavistock.—Dated October 14, 1862.**

**VALUABLE BUSINESS PREMISES.—TO BE SOLD, BY PRIVATE CONTRACT, the BUILDINGS, MACHINERY, and PATENT RIGHTS of a FUEL MANUFACTORY in SOUTH WALES, the property of a gentleman who is compelled by partnership arrangements to retire from the business.—For further particulars, apply to C. G. BATMAN, Esq., civil and mining engineer, Llandy, Carmarthenshire.**

**TO SULPHURIC ACID MANUFACTURERS.—SULPHATE OF LEAD and LEAD ASHES PURCHASED.—Address samples, Balmister Smelting Works, Bristol.**

**IRONWORKS TO LET, comprising FORGE, GUIDE, and MERCHANT MILL, PUDDLING, ROLLING, and MILL FURNACES, together with all necessary MACHINERY and WORKS for turning out 70 tons weekly of finished merchant or rod iron. They are most conveniently situated, and are connected with a main line of railway. The rent is low, and the terms of the lease are favourable. Price of tools, implements, machinery, &c., £2000.—For further particulars, and to treat, apply to Mr. C. STUART BARKER, mineral agent, 12, Buckingham-st., Strand, London, W.C.**

**TO BE SOLD, ONE 10 horse HIGH PRESSURE HORIZONTAL STEAM ENGINE, with governor.—For particulars, apply to Messrs. BENJAMIN HICK and Son, Soho Ironworks, Bolton; or to Mr. ROW, HARVON, Messrs. B. HICK and Son's offices, Western Annex, International Exhibition, where it can be seen.**

**BOILERS.—FOR SALE, BY PRIVATE CONTRACT, at the SUNDERLAND and SOUTH SHIELDS WATERWORKS STATION, CLEAN, SIX HIGH PRESSURE CYLINDRICAL BOILERS, from 20 1/4 ft. to 31 ft. long, and from 6 to 6 1/2 ft. diameter, with all the fittings complete.**

The above are in good condition, having been used in sinking the shaft at the Cleveon Waterworks, which is now completed.

The same may be seen at the above works, and further particulars obtained on application to Mr. WILLIAM DIXON, at the offices, 7, Fawcett-street, Sunderland.

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**SHEFFIELD SCHOOL OF PRACTICAL SCIENCE AND METALLURGY.**  
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MINING, SLATE QUARRYING, INSURANCE, and GENERAL STOCK and SHAREDEALER.

A monthly investment circular on application.  
Investing in this office is limited to special mines, and companies whose pretensions have been personally investigated, and to the dividend-paying mines ordinarily dealt with on the London market, and for the latter purpose arrangements have been made for the earliest information from the great mining districts. There can be little doubt that the dealing with well-established, dividend-paying mines, investors, without any greater risk than from the purchase of railway or house property, receive a much larger return than from any other species of investment, free from all trouble, and paid in a convenient form for those who have limited incomes—viz., every two or three months; while those who enter into new undertakings, such as progressive mines, have no knowledge that nothing which is not *bona fide*, and has stood the test of thorough examination, is submitted to them. It cannot, of course, be expected that where the profits are so enormous that these latter investments should be entirely free from risk. But that can be done to ascertain the respectability of the management, and the value of the prospects. This done, no speculations are likely to be so valuable as those in mining operations; it being an uncommon occurrence for shares to rise in value 200 and 300 per cent. in a few months.

**MR. JOSIAH HUGO HITCHINS**, the Consulting Mining Engineer of the Devon Great Consols Mines and others, announces that his present arrangements will enable him to afford GREATER FACILITY and ADVANTAGE of CONSULTATION on the ELIGIBILITY and VALUE of MINING INVESTMENTS, and he will also act as a STRICTLY CONFIDENTIAL AGENT in effecting the PURCHASE or SALE of MINING PROPERTIES, and SHARES in MINES, on the most advantageous terms.

Mr. J. H. Hitchins will periodically visit the mines of Devon and Cornwall, the North of England, Ireland, and Wales, to obtain the best local agents' opinions of the present and prospective value, and more especially to enable him on his own judgment to advise thereon in the most reliable manner.  
Mining investments have no hesitation in saying that mines in desirable localities, and worked with good practical judgment, prove profitable investments. It is necessary, however, that persons should be guided by the soundest information and advice in the selection of them—and, indeed, only such mines as are recommended by the most able, the most experienced, and the most trustworthy agents, should be embarked in.  
Mr. J. H. Hitchins properly values his reputation as the projector, and for many years the chief superintendent, of not only those wonderful mines, the Devon Great Consols, but also many others in Devon and Cornwall, as is well known, and presumes that his thirty years' varied experience and well matured judgment will enable him to advise the best investments in Dividend Mines, as well as those likely to realise the greatest and earliest success.

Mineral investments afford opportunities occasionally for realizing great profit, and, indeed, it is not unfrequently happens that mines in a short time so much improve as to enable the shares in them from 100 to 200 per cent., and upwards, more valuable. There are several mines paying dividends, and others safely progressing towards that desirable position, offering great inducement for investment at the present prices of shares (some being very likely to greatly increase in value before long), to which Mr. J. H. Hitchins desires to direct special attention.

Mr. J. H. Hitchins will also assist in the formation of new companies for good undertakings, and advise existing companies on the best improvements to be made in the machinery, means, appliances, and management generally of their mines.

Combs, Hiram, Devonshire.

## VALUABLE INFORMATION TO INVESTORS. COMPANIES.

**THE SOUTH WALES MINE AGENCY.**—South Wales is a colossus of wealth as regards its minerals, but mismanagement, and a want of knowledge respecting the peculiarities of the district, have often proved fatal to many well-merited enterprises. It is a well-known fact that enormous fortunes have been realised by private parties, as well as public companies, in Glamorganshire and Monmouthshire especially. There are inexhaustible coal fields, ironstone, fire-clay, &c., in those two counties not yet touched, while certain localities in Carmarthen, Cardigan, Brecon, Merioneth, Carnarvon, Anglesey, and Montgomeryshire, abound in tin, copper, silver, lead, and even gold mines.  
Mr. HENRY EVANS, 105, Commercial-street, Newport, Monmouthshire, from his extensive and various connections, is in a position to supply parties with reliable information respecting everything connected with the mines of the district. SURVEYS made, and all the business of a mining agency office transacted. SHARES BOUGHT and SOLD. Confidential and other communications will receive prompt attention. On application to Mr. EVANS, the names of many gentlemen of the highest standing in the scientific and mining world will be given, who may be consulted as regards the position, respectability, and responsibility of the advertiser.  
SHARES FOR SALE:—30 Lady Eliza (Limited, £3), £2 13s. paid; 40 South Miners (Limited, £3), £2 12s. paid, an offer wanted.

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Mining shares pay from 15 to 20 per cent. in dividends, promptly paid every two and three months. Progressive shares in mines frequently advance from 100 to 300 per cent. in value, free from risk, and safe to become permanent investments, if judiciously selected from reliable information.

**Messrs. FULLER AND CO., 26, CHANGE ALLEY, CORNHILL, LONDON.** Devote special attention to this class of property, having confidential agents in all parts of the kingdom, in whom great confidence is placed.  
The following mines are specially recommended as likely to advance in price, and of increasing value of the year 1863:

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East Wheel Agar.		Yudanumutana (S. Aus.).

Telegraphic messages promptly attended to.

**TO ADVENTURERS IN FOREIGN MINES.**—**MR. HARRY THOMAS VERRAN**, of PLACENTIA, NEWFOUNDLAND, who has had considerable experience (under the tuition of his father, and in connection with many other experienced Mining Engineers) is ready to UNDERTAKE the EXAMINATION and REPORTING upon MINERAL PROPERTIES in Newfoundland, the United States, or any other country, where his services may prove useful to capitalists. The greatest confidence may be placed in Mr. VERRAN, who will use his best judgment in giving reliable information to those who may repose confidence in him.

**SCIENTIFIC RECORD OF THE EXHIBITION (PRACTICAL MECHANICS JOURNAL)**, Part XI, Dec. 1, price 2s., contains ASTRONOMICAL INSTRUMENTS, by T. R. ROBINSON, D.D., F.R.S., F.R.A.S., &c. INSTRUMENTS CONNECTED WITH LIGHT, by Prof. J. CLERK MAXWELL, F.R.S., L. and E. PHYSICAL APPARATUS, by the Rev. Prof. HAUGHTON, F.R.S., F.R.S.E., F.R.S.E. MEASUREMENT OF TIME—CLOCKWORK—HOROLOGICAL, by W. HILLOP, F.R.S.A. BELLS, by the Rev. Prof. HAUGHTON, F.R.S. MUSICAL INSTRUMENTS, by EDWARD R. HART, LL.D., F.R.S., &c. ELECTRICAL INSTRUMENTS and TELEGRAPH APPARATUS, by C. W. SIEMENS, F.R.S., Mem. Inst. C.E. Illustrated by plate engraving of ORDANCE RIFLING MACHINE, and 60 woodcuts.  
London: Longman and Co., Ludgate-hill; Proprietors' Offices (Offices for Patents), 47, Lincoln's Inn-fields, W.C.

**PRACTICAL MECHANICS JOURNAL** for December, 1862 (Part 177, price 1s.), with a large engraving of Mr. A. Barclay's Steam Crane, and woodcuts. Also, Original Articles on the Close of the Exhibition (Art. 8), Preservation of Timber, Sugar Machinery in the Exhibition, Whitworth and Armstrong's Locomotives, Chalmers' Blinds, Seriation: Sewing Machines, McKenzie's Electric-Magnetic Engines, Guy's Magnetic Printing, Harrison's Law Reports: Young's Electric Threshing Machine, Goulet's Frothing, American Patent Law, Reviews, Correspondence, Scientific Societies, British Association, Monthly Notes, Marine Memoranda, Lists of Patents and Designs, Notices, &c.  
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Capitalists who seek safe and profitable investments, free from risk, should act only upon the soundest information. The market prices for the day are for the most part governed by the immediate supply and demand, and the operations of speculators, without reference to the *bona fide* merits of the property. Railways depend upon the traffic, expenditure, and capital accounts, the probabilities of alliance or competition with neighbouring companies, the creation of new shares, the state of the money market as affecting the return of debentures, and other considerations founded on data to which only those can have access who give special attention to the subject. Mines afford a wider range for profit than any other public securities. The best are free from debt, have large reserves, and pay dividends of monthly varying from £15 to £25 per cent. per annum. Instances frequently occur of young mines rising in value 400 or 500 per cent. But this class of security, however, should be purchased only upon the most reliable information. The capitalists should devote special attention to railways and mines, afford every information to experience in mining pursuits justifies us in offering our advice to the uninitiated in seeking mines for investment; we will, therefore, forward, upon receipt of Post-office order for 5s., the names of six dividend and six progressive companies that will, in our opinion, well repay capitalists for money employed.

**Messrs. TREDNICK and CO., STOCK and SHAREBROKERS, and DEALERS IN BRITISH MINING SHARES, 78, LOMBARD STREET, E.C.**

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**NICHOLLS, WILLIAMS, AND CO.** have generally a GOOD STOCK of SECOND-HAND MINING MATERIALS FOR SALE. They also MANUFACTURE STEAM ENGINES of every description on the newest principle. Castings and wrought-iron work made at the shortest notice. Machinery sent all parts of the world. Steam boilers and chains warranted of the best description.

**TO ENGINEERS, MINE AGENTS, MILLWRIGHTS, AND OTHERS.**  
Messrs. NICHOLLS, WILLIAMS, and Co. beg to announce to their customers and the public that, having ERECTED a POWERFUL STEAM HAMMER, they are now in a POSITION to MANUFACTURE HEAVY SHAFTS, and HAMMERED IRON GENERALLY, from selected scrap. All orders will have their best attention.

**MR. WHEATLEY KIRK** (principal of the firm of Wheatley Kirk and Co., engineers, contractors, &c.) ARCHIMEDEAN WORKS, ALBERT STREET, ST. MARY'S, MANCHESTER, continues, after upwards of 20 years' experience, personally to attend to VALUATIONS, ARBITRATIONS, or SALES BY PRIVATE CONTRACT or PUBLIC AUCTION, of EVERY DESCRIPTION of PROPERTY appertaining to ENGINEERING, MILLWRIGHTS, or PLANT in ENGINEERING ESTABLISHMENTS, MILLS, FACTORIES, WORKS, &c., with the LANDS, ESTATES, and BUILDINGS belonging thereto; also in RAILWAYS, MINES, &c.—Albert-street, St. Mary's, September, 1862.

**RAILWAY WAGONS.—WILLIAM A. ADAMS AND CO., MIDLAND WORKS, BIRMINGHAM.**  
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RAILWAY WAGONS TO BE SOLD OR LET.  
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RAILWAY WAGONS FOR HIRE.  
Apply to the SECRETARY, 3, Newhall-street, Birmingham.

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With which is united the Rolling Stock Company of Ireland (Limited).  
OFFICES, 92, CANNON STREET, E.C.  
LONDON WORKS, RAILWAY WORKS, GOSWELL STREET.  
DUBLIN WORKS, SEVILLE WORKS, DUBLIN.

The Directors beg to announce that the BUSINESS of the company has been REMOVED to the PERMANENT OFFICES, 92, CANNON STREET, E.C., and that they are now PREPARED TO RECEIVE PROPOSALS FOR WORKING ON LEASE COMPLETED LINES OF RAILWAY at FIXED RATES.  
They are also PREPARED TO SUPPLY, either by way of lease, hiring, or sale, EVERY DESCRIPTION of ROLLING STOCK, ENGINES, CARRIAGES, WAGONS, &c. The company has on hand a large number of first-class wagons, constructed either for goods or coal. Terms can be had on application at the offices, addressed to J. HOWARD RUSSEL, Sec.

**JOHN PICKERING AND CO., RAILWAY WAGON AND CARRIAGE BUILDERS.**  
WAGONS FOR SALE, HIRE, OR ON PURCHASE LEASE.  
BRINSFORTH WAGON WORKS, ROTHERHAM.

**TO RAILWAY COMPANIES, CONTRACTORS, COAL and IRONMASTERS, WAGON BUILDERS, &c.—THE BEST and CHEAPEST LOCOMOTIVE GREASE is MANUFACTURED by BUCKNELL, CHESTERFIELD.** Only one quality made. A trial is solicited. References given to some of the principal coal owners in the district. Sample casks from 2 cwt. upwards.  
Chesterfield, February 6, 1862.

**SHORTBRIDGE, HOWELL, AND CO., HARTFORD STEEL WORKS, SHEFFIELD.** SOLE MANUFACTURERS OF HOWELL'S PATENT HOMOGENEOUS METAL PLATES FOR BOILERS, LOCOMOTIVE FIRE BOXES, and TUBES, COMBINING THE STRENGTH OF STEEL with the MALLEABILITY OF COPPER. RUSSELL AND HOWELL'S PATENT CAST STEEL TUBES. MCCONNELL'S PATENT HOLLOW RAILWAY AXLES. For prices and terms, apply to SHORTBRIDGE, HOWELL, and Co., Hartford Steel Works, Sheffield; or Messrs. HARVEY and Co., 12, Haymarket, London.

**NICKEL AND COBALT REFINING, and GERMAN SILVER WORKS, 16, OZZELL STREET NORTH, BIRMINGHAM.**  
STEPHEN BARKER begs to inform the Trade that he has the following articles for sale:—  
REFINED METALLIC NICKEL. OXIDE OF COBALT. (WIRE, &c.)  
REFINED METALLIC BISMUTH. GERMAN SILVER—IN INGOTS, SHEET  
NICKEL AND COBALT ORES PURCHASED.

**GOLDENHILL, COBALT, NICKEL, COLOUR, BORAX, and CHEMICAL WORKS.**  
NEAR STOKES-UPON-TRENT, STAFFORDSHIRE.  
JOHN HENSHALL WILLIAMSON, MANUFACTURER and REFINER.  
Reference.—Professor Miller, King's College, London.

**EDWARDS'S PATENT MINERAL ORE and COAL WASHING MACHINE.**—This is by far the MOST ECONOMICAL, as well as the MOST PERFECT MACHINE MADE. Each machine is capable of washing 25 to 50 tons per diem, according to quality.—Full particulars, testimonials, &c., may be obtained from E. EDWARDS, Esq., C.E., 1, York-buildings, Adelphi, where a working model may be seen.

**COAL WORKING MACHINERY.**—The West Ardsley Coal Company, having completed their Patented Machinery for Coal Mining, by Compressed Air Engines, beg to state that it is now in regular daily operation.  
Those who wish to see the said machinery at work can do so on presenting a written order from the firm, which may be obtained as noted below.  
And with a view to diminish as much as possible the unavoidable interruption to the ordinary business of the colliery, it is requested that parties should make their arrangements to visit the works on Saturdays only, from Eleven to Three o'clock.  
All communications to be addressed to FURTH, DONISTHORPE, and BOWEN, 8, Britannia-street, Leeds.—November 14, 1862.

**CREASE'S PATENT EXCAVATING MACHINERY.** FOR SUPERSEDING THE SLOW and EXPENSIVE USE of MANUAL LABOUR IN SINKING SHAFTS, DRIVING LEVELS, TUNNELING, &c., is guaranteed to drive through any rock of average hardness at a minimum rate of 1 ft. per diem, and to sink shafts at the rate of 2 fms. in three days.  
Mr. CREASE will undertake contracts for sinking shafts, driving levels, &c., at an enormous reduction of time and great saving in cost.  
Applications to be addressed to Mr. GEORGE T. CURTIS (sole agent), 17, Gracechurch-street, London, E.C.

By providing the power of calculating the time and cost to explore a certain depth and extent of ground, speculation in mining will be assimilated to commercial pursuits, with this unmistakable advantage—that when the ground has been once carefully and judiciously selected, and operations properly and systematically carried out for its development, there would be far less chance of unsatisfactory results than are met with by merchants and manufacturers in the usual routine of their business. As this important invention must beneficially interest the landowners, mine proprietors, merchants, and miners, we opine it will meet with immediate adoption.—*Mining Journal*.

**ASSAYS and ANALYSES of EVERY DESCRIPTION**  
Conducted by JOHN MITCHELL, F.R.S., M.G.A. (late Mitchell and Rickard) Author of "Manual of Practical Assaying," "Metallurgical Papers," &c.  
All communications and samples to be addressed (free) to Mr. MITCHELL, care of Mr. P. Clay, 29, Great St. Helen's, London, E.C.

**TO INVENTORS.—ALL INTENDING PATENTEES** should PROCURE THE PRINTED INFORMATION regarding PATENTS, their COST and the MODE of PROCEDURE to be adopted, ISSUED GRATIS by the GENERAL PATENT COMPANY (LIMITED), 71, FLEET STREET, LONDON.  
R. MARSDEN LATHAM, Sec.

**TO CAPITALISTS.**—**MESSRS. LEICESTER AND CO., INSPECTORS and VALUERS of MINES, &c., MELBOURNE, VICTORIA.** OFFER THEIR SERVICES to SELECT and INVEST CAPITAL IN MINING PROPERTIES, for which they charge 2½ per cent.; and they also COLLECT and TRANSMIT THE DIVIDENDS, charging 40 per cent. on their amount. Messrs. LEICESTER and Co. earnestly call the attention of capitalists to the many opportunities they possess of investing, to pay from £50 to £150 per cent. per annum. Sums under £50 will be charged extra. All remittances must be made through our agent, Mr. RICHARD MIDDLETON, *Mining Journal* office, 26, Fleet-street, London; or direct through our bankers, the Union Bank of Australia.

## International Exhibition, Class 8 and 9—Prize Medals.



**CLAYTON, SHUTTLEWORTH, AND CO.** have been AWARDED PRIZE MEDALS for the "good arrangement, good workmanship, and practical success" of their steam-engine in Class 8, and "for their steam-engines and threshing machines" in Class 9.  
CLAYTON, SHUTTLEWORTH, and Co., Agricultural and General Engineers, Lincoln, and 78, Lombard-street, London.

## International Exhibition, 1862—Prize Medal.



**JAMES RUSSELL AND SONS** (the original patentees and first makers of wrought-iron tubes), of the CROWN PATENT TUBE WORKS, WEDNESBURY, STAFFORDSHIRE, have been AWARDED a PRIZE MEDAL for the "good work" displayed in their wrought-iron tubes and fittings.  
Warehouse, 81, Upper Ground-street, London, S.

## Prize Medals—International Exhibition, Class 1 and 2.

**PATENT PLUMBAGO CRUCIBLES.**—THE CRUCIBLES manufactured by the PATENT PLUMBAGO CRUCIBLE COMPANY are the ONLY KIND for which a MEDAL has been AWARDED, and are now used exclusively by the English, Australian, and Indian Mints; the French, Russian, and other Continental Mints; the Royal Armories of Woolwich, Bristol, and Toulon, &c.; and have been adopted by most of the large ENGINEERS, BRASSFOUNDERS, and REFINERS in this country and abroad. The GREAT SUPERIORITY of these melting pots consists in their capability of melting on an average 40 pourings of the most difficult metals, and a still greater number of those of an ordinary character, some of them having actually reached the EXTRAORDINARY NUMBER of 96 meltings. They are unaffected by change of temperature, never crack, and become heated much more rapidly than any other crucibles. In consequence of their great durability, the saving of waste is also very considerable.

The company have recently introduced CRUCIBLES SPECIALLY ADAPTED for the following purposes, viz.:—MALLEABLE IRON MELTING, the average working of which has proved to be about seven days; STEEL MELTING, which are found to save nearly 1½ ton of fuel to every ton of steel fused; and for ZINC MELTING, lasting much longer than the ordinary iron pots, and saving the great loss which arises from mixture with iron.  
For lists, testimonials, &c., apply to the Patent Plumbago Crucible Company, Battersea Works, London, S.W.  
Fully described in the MINING JOURNAL of July 5.

## International Exhibition, 1862—Class 1.

**JURY AWARD OF HONOURABLE MENTION**, given to Ellis Lever, "for convenience and efficiency" in ventilating mines, "especially in cases of emergency," with brattice, door-cloth, and flexible tubing, as exhibited and manufactured by him.  
ELLIS LEVER, WEST GORTON WORKS, MANCHESTER, begs respectfully to inform all owners and managers of collieries, ironstone, lead, or copper mines, that he is PREPARED TO SUPPLY the FLEXIBLE TUBING, in any length, and from 6 in. to 24 in. diameter. BRATTICE and DOOR-CLOTH in any width or length, AIR-PROOF, FIRE-PROOF, or WATER-PROOF. A large stock of every width constantly ready for immediate dispatch to any part.  
ELLIS LEVER, MANCHESTER.

Adopted by the Governments of Great Britain, Spain, Denmark, Russia, Brazil, East and West Indies.  
**EASTON'S PATENT BOILER FLUID,** FOR REMOVING AND PREVENTING INCORUSTATION IN STEAM BOILERS, LAND and MARINE.  
F. S. EASTON AND CO., SPRINGFIELD, Patentees and Sole Manufacturers.  
37, 38, and 39, WAPPING WALL, LONDON, E.  
Or of their Agents in the principal towns of Great Britain and the Colonies.

**HALL AND WELLS, PATENTEES AND MANUFACTURERS OF SUBMARINE TELEGRAPH CABLES, CABLES, &c.—TELEGRAPH CONDUCTORS INSULATED WITH INDIA RUBBER at £3 per mile and upwards, PARTICULARLY ADAPTED FOR MINING PURPOSES.** Further particulars as to price of cores, cables, &c., can be had on application at 40, Aldermanbury, City, E.C.; and Steam Mills, Mansfield-street, Borough-road, Southwark, S.E. Copper wire covered with silk, cotton, or any other material, to order.

**PATENT SAFETY FUSE.—THE GREAT EXHIBITION PRIZE MEDAL** was AWARDED to the MANUFACTURERS of the ORIGINAL SAFETY FUSE, BICKFORD, SMITH, DAVEY, and PRYOR, who beg to inform Merchants, Mine Agents, Railway Contractors, and all persons engaged in Blasting Operations, that, for the purpose of protecting the public in the use of a genuine article, the PATENT SAFETY FUSE has now a thread wrought into its centre, which, being patent right, infallibly distinguishes it from all imitations, and ensures the continuity of the gunpowder. This Fuse is protected by a Second Patent, is manufactured by greatly improved machinery, and may be had of any length and size, and adapted to every climate.  
Address:—BICKFORD, SMITH, DAVEY, and PRYOR, Tuckermill, Cornwall.

**SAFETY FUSE.**—**MESSRS. WILLIAM BRUNTON AND CO., PENNALLICK, POOL, near CAMBORNE, CORNWALL, and BRYMBO, near WREXHAM, MANUFACTURERS OF FUSE**, of every size and length, as exhibited in the Great Exhibition of 1861, and supplied to the Royal Arsenal at Woolwich, the Arctic Expedition, and every part of the globe.  
For the convenience of their customers and others in the North, W. BRUNTON and Co. have recently erected a branch manufactory at Brymbo, near Wrexham, where, as at Cornwall, they are at all times PREPARED TO EXECUTE UNLIMITED ORDERS for SUPPLYING FUSE upon warrant that it will prove equal to, if not better than any to be procured elsewhere.

**DAVEY'S PATENT BLASTING POWDER,** MANUFACTURED BY DAVEY BROTHERS AND CO., NANCEKUKU POWDER WORKS, TUCKERMILL, CORNWALL.  
This blasting powder possesses the following advantages over every other in use:—Its COMBUSTION is SLOWER and MORE PERFECT when confined in the hole, it is MORE IMPERVIOUS to MOISTURE, PRODUCES LESS SMOKE, is LESS DANGEROUS, it BURSTS as MUCH ROCK with a CHARGE OCCUPYING the SAME or even LESS SPACE, and its WEIGHT being TWENTY to TWENTY-FIVE PER CENT. LESS than ordinary gunpowder, a SAVING OF ONE-FOURTH the COST is EFFECTED.  
DAVEY BROTHERS and Co. beg to state that this powder is specially made for blasting, and from its slow combustion is not adapted for projectiles. They would, therefore, caution consumers not to be induced by interested parties to put it to a fallacious trial, by firing a ball from a mortar, which is no test of its explosive force when confined.

**BASTIER'S PATENT CHAIN PUMP.** APPARATUS FOR RAISING WATER ECONOMICALLY, ESPECIALLY APPLICABLE TO ALL KINDS OF MINES, DRAINAGE, WELLS, MARINE, FIRE, &c.  
J. U. BASTIER begs to call the attention of proprietors of mines, engineers, architects, farmers, and the public in general, to his new pump, the cheapest and most efficient ever introduced to public notice. The principle of this new pump is simple and effective, and its action is so arranged that accidental breakage is impossible. It occupies less space than any other kind of pump in use, does not interfere with the working of the shafts, and unites lightness with a degree of durability almost imperishable. By means of this hydraulic machine water can be raised economically from wells of any depth; it can be worked either by steam-engine or any other motive power, by quick or slow motion. The following statement presents some of the results obtained by this hydraulic machine, as fully demonstrated by use:—  
1.—It utilizes from 90 to 92 per cent. of the motive power.  
2.—Its price and expense of installation is 75 per cent. less than the usual pumps employed for mining purposes.  
3.—It occupies a very small space.  
4.—It raises water from any depth with the same facility and economy.  
5.—It raises with the water, and without the slightest injury to the apparatus, sand, mud, wood, stone, and every object of a smaller diameter than its tube.  
6.—It is easily removed, and requires no cleaning or attention.  
A mining pump can be seen daily at work at Wheal Concord Mine, South Sydenham, Devon, near Tavistock; and a shipping pump at Woodside Graving Dock, Liverpool (Limited), Birkenhead, near Liverpool.  
J. U. BASTIER, sole manufacturer, will CONTRACT TO ERECT his PATENT PUMP at HIS OWN EXPENSE, and will GUARANTEE IT FOR ONE YEAR, or will GRANT LICENSES to manufacturers, mining proprietors, and others, for the USE of his INVENTION.  
OFFICES, 47, WARREN STREET, FITZROY SQUARE.  
London, March 21, 1859. Hours from Ten till Four. J. U. BASTIER, C.E.

**LITHOGRAPHIC PLAN DRAWING and PRINTING.**—ANDREW REID, LITHOGRAPHIC PLAN DRAUGHTSMAN, continues to EXECUTE, in a superior manner, with dispatch, and on moderate terms, EVERY DESCRIPTION of MAP and PLAN WORK.  
Having for several years given his attention to plan work, printing in colours, he respectfully refers his friends and the public generally to the numerous plates illustrating the volumes of the North of England Institute of Mining Engineers' Transactions, also to the late Mr. Bewick's work on Cleveland Ironstone, as specimens of good colour printing.  
40 and 65, Pilgrim-street, and 24, Shakespeare-street, Newcastle-upon-Tyne.

**THE ATTENTION OF GENTLEMEN and FAMILIES** is respectfully INVITED to our PRICES of FOREIGN WINES and LIQUEURS, genuine and well selected:—  
Ports in wood, 20s., 24s., matured, 26s., 30s., and 42s. per doz.  
Ports in bottle, 30s., 42s., 48s., 54s., 60s., to 96s.  
Sherry, 21s., 24s., 28s., 30s., 32s., 36s., 42s., 48s., 54s., 60s.  
Brandy, 20s., 24s., 28s., 30s., 32s., 36s., 42s., 48s., 54s., 60s.  
Rousillon, 21s. to 25s. per doz.; Vin Ordinaire, 15s.; Medoc, 21s.  
St. Julien, &c., 30s. to 36s.  
Larose, Laville Margaux, Lafitte, Latour, at proportionate rates.  
Chablis Grave, Sauternes, Chateau Yquem. Champagne (sparkling), Hermitage, St. Pères, and Chateau Grilles.

Detailed Price List of Wines, Liqueurs, Brandy, &c., on application to ARTHUR COUPER and CO., 11, JERMYN STREET, ST. JAMES'S, S.W.

**DR. SMITH** has just published a free edition of his valuable work, the PRIVATE MEDICAL FRIEND (116 pages), on the Self Cure of Nervous Debility, Loss of Memory, Dimness of Sight, Lassitude, &c., resulting from the errors of youth. Sent post free to any address, on receipt of a directed envelope, enclosing two postage stamps.—Address, Dr. SMITH, 8, Burton-crescent, Tavistock-square, London W.C.



# THE MINING SHARE LIST.

## DIVIDEND MINES.

Shares.	Mines.	Paid.	Last Pr.	Business.	Dividends Per Share.	Last Paid.
1500	Alderley Edge (Cheshire) [L.]	0 0 0	60	..	7 18 6	0 10 0—May, 1882
4000	Bedford United (copper), Tavistock [L.]	2 6 8	4	..	12 17 6	0 2 0—Sept. 1882
240	Boscon (tin), St. Just [S.E.]	20 10 0	6	..	35 10 0	0 2 0—Mar. 1882
200	Botallack (tin), St. Just [S.E.]	91 5 0	250	..	455 15 0	0 6 0—Nov. 1882
916	Cargill (silver-lead), Newlyn [S.E.]	15 7 0	32	34 36	1 0 0	0 0 0—Nov. 1882
1000	Carn Brea (copper), Illogan [S.E.]	15 0 0	70	60 65	273 10 0	0 2 0—Feb. 1882
200	Carn Cwmm Brynno (lead), Cardiganshire [S.E.]	15 0 0	10	..	9 0 0	0 4 0—April, 1881
256	Copper Hill (copper), Redruth [S.E.]	48 0 0	80	..	9 10 0	2 10 0—Sept. 1882
35000	Copper Mines of England [S.E.]	25 0 0	25	..	7 1/2 per cent.	—Half-yearly
1000	Craddock Moor (copper), St. Cleer [S.E.]	8 0 0	24	..	7 12 0	0 4 0—July, 1882
1512	Craggwaun and Penkell, St. Cleer [S.E.]	0 0 0	..	..	0 10 0	0 0 0—Jan. 1882
867	Cwm Eryn (lead), Cardiganshire [L.]	7 10 0	11	..	7 13 0	0 5 0—July, 1882
128	Cwmystwith (lead), Cardiganshire [S.E.]	60 0 0	105	..	247 10 0	0 4 0—Sept. 1882
280	Darwent Mines (sil.-lead), Durham [S.E.]	300 0 0	180	..	147 0 0	0 6 0—June, 1882
1024	Devon Gt. Consol. (copper), Tavistock [S.E.]	1 0 0	600	495 505	828 10 0	0 10 0—Nov. 1882
350	Dolcoath (copper), Camborne [S.E.]	12 6 0	104	..	630 10 0	0 7 0—Oct. 1882
2000	Dyffryn (lead), W. Cornwall [S.E.]	12 6 0	104	..	0 15 0	0 2 0—Sept. 1882
512	East Basset (copper), Redruth [S.E.]	29 10 0	53	51 53	105 0 0	1 0 0—Nov. 1882
6144	East Caradon (copper), St. Cleer [S.E.]	2 14 6	34	36 34	4 17 6	1 0 0—Oct. 1882
300	East Darwen (copper), Cardiganshire [S.E.]	32 0 0	45	..	84 10 0	1 0 0—Oct. 1882
128	East Pool (tin), Pool, Illogan [S.E.]	24 0 0	405	..	315 0 0	2 10 0—Oct. 1882
5000	Foxdale (lead), Isle of Man [L.]	25 0 0	35	..	0 16 0	0 2 0—Mar. 1882
2000	Frank Mills (lead), Devon [S.E.]	0 14 6	6 1/2	6 3/4	7 18 6	0 5 0—Dec. 1881
1798	Great Wheal Fortune (tin), Breage [S.E.]	18 0 0	30	27 3/4	3 0 0	0 10 0—Oct. 1882
5008	Great Wh. Vort (tin), Helston [S.E.]	40 0 0	6 1/2	..	2 2 0	0 0 0—Sept. 1882
10240	Gunnla Lake (copper), St. Cleer [S.E.]	0 2 0	3 1/2	..	0 3 0	0 1 0—Mar. 1882
1024	Herodfoot (sil.-lead), near Liskeard [S.E.]	8 10 0	47	..	21 10 0	1 15 0—Oct. 1882
1000	Hilberton Mine Company [S.E.]	92 8 2	27 1/2	..	7 10 0	0 15 0—Sept. 1881
1000	Isaburo (lead), Cardiganshire [S.E.]	10 0 0	110	..	829 10 0	0 4 0—Nov. 1882
9000	Marka Valley (copper), St. Cleer [S.E.]	10 0 0	10 1/2	8 1/2 9 1/2	99 10 0	7 0 0—Oct. 1882
20000	Minera Mining Co. (L.), (id.), Wrexham [S.E.]	25 0 0	200	..	14 7 11 0	0 7 0—Dec. 1881
640	Mount Pleasant (lead), Mold [S.E.]	4 0 0	27	..	18 18 1	0 7 0—Aug. 1881
600	New Birch Tor and Viller Consol. (tin), St. Agnes [S.E.]	1 6 6	1 1/2	..	0 3 0	0 1 0—Sept. 1882
5856	North Trekerby (copper), St. Agnes [S.E.]	1 0 0	3 1/2	3 1/2 3 1/2	0 3 0	0 1 0—Dec. 1881
5000	Orsted (lead), Flintshire [S.E.]	0 8 8	1 1/2	..	86 18 0	0 7 0—Nov. 1882
646	Par Consol. (copper), St. Cleer [S.E.]	50 0 0	10 1/2	..	47 10 0	10 0 0—Oct. 1882
209	Parya Mines (copper), Anglesey [L.]	50 0 0	..	..	..	..
400	Phoenix (copper and tin)	..	200	..	..	..
1773	Pollorro (tin), St. Agnes [S.E.]	..	..	..	4 19 6	0 10 0—Dec. 1881
112	Providence (tin), Uny Lelant [S.E.]	10 6 7	42	38 40	66 5 0	1 5 0—Nov. 1882
6000	Rosewell Hill and Hanson United [S.E.]	2 16 0	3 1/2	3 1/2 3 1/2	0 8 0	0 2 0—Sept. 1882
6028	Rosewarne Consol. (copper)	3 7 6	..	..	0 2 0	0 2 0—Oct. 1882
16	Rhaseur (lead)	50 0 0	..	..	1250 0 0	100 0 0—Quarterly
512	South Caradon (copper), St. Cleer [S.E.]	40 0 0	400	300 400	391 0 0	5 0 0—Nov. 1882
412	South Tolgus (copper), Redruth, Cornwall [S.E.]	0 0 0	42	40 42 1/2	107 0 0	1 0 0—May, 1882
616	S. Wh. Frances (copper), Illogan [S.E.]	18 18 9	95	90 95	264 6 0	2 0 0—Nov. 1882
280	Sparrow Moor (tin), St. Just [S.E.]	31 17 9	..	..	9 15 0	1 0 0—June, 1882
840	St. Ives Consol. (tin), St. Ives [S.E.]	0 0 0	30	..	488 10 0	0 10 0—Aug. 1882
5000	Tamar Consol. (sil.-lead), Berrisford [S.E.]	4 10 0	1 1/2	..	6 8 0	0 2 0—Jan. 1881
1000	Tarnbrook (copper), Pool, Illogan [S.E.]	0 0 0	14	12 1/2 13 1/2	11 0 0	0 2 0—Mar. 1882
1000	Trumpet Consol. (tin), near Helston [S.E.]	11 10 0	..	..	11 0 0	0 2 0—Mar. 1882
4200	Vigra and Clogau (copper), [L.]	2 15 0	35	32 34	4 12 6	1 0 0—Oct. 1882
1024	Wendron Consol. (tin), Wendron [S.E.]	11 13 0	12	11	8 15 0	1 0 0—Jan. 1881
6000	West Basset (copper), Illogan [S.E.]	1 10 0	14	..	28 0 0	0 6 0—Sept. 1882
80	West Burton Hill (lead), Yorkshire [S.E.]	60 0 0	..	..	14 10 0	3 0 0—June, 1881
1024	West Caradon (copper), Liskeard [S.E.]	5 0 0	35	29 31	101 1 0	0 10 0—Oct. 1882
4000	West Fowey Consol. (tin and copper)	7 10 0	..	..	0 19 0	2 10 0—May, 1882
1024	West Penwith (copper), [S.E.]	..	..	..	363 0 0	5 0 0—Oct. 1882
400	W. Wh. Bason (copper), Camborne [S.E.]	47 10 0	290	285 295	691 10 0	2 0 0—Dec. 1882
512	Wheal Basset (copper), Illogan [S.E.]	6 2 6	87 1/2	82 1/2	229 0 0	2 0 0—Mar. 1881
256	Wheal Buller (copper), Redruth [S.E.]	5 0 0	55	50 55	27 18 0	0 10 0—Oct. 1882
3500	Wheal Cliff (copper), Gwennap [S.E.]	5 0 0	23	21 1/2 22 1/2	3400 10 0	5 0 0—Feb. 1881
128	Wheal Friendship (copper), Devon [S.E.]	50 0 0	90	27 29	2 0 0	0 10 0—Sept. 1882
1024	Wheal Grylls (tin), Penryn [S.E.]	2 4 0	29	27 29	0 5 0	0 2 0—Feb. 1882
1024	Wheal Harriet (tin), St. Just [S.E.]	9 12 8	..	..	12 10 0	1 0 0—Mar. 1882
612	Wheal Jane (silver-lead), Kea [S.E.]	3 10 0	16	..	2 2 0	0 10 0—Oct. 1882
5000	Wheal Lincott and Wray (lead), St. Ives [S.E.]	2 10 8	11 1/2	9 1/2 10	56 7 0	0 10 0—Sept. 1882
894	Wheal Margaret (tin), Uny Lelant [S.E.]	9 17 6	42	38 40	518 10 0	7 10 0—Nov. 1882
180	Wheal Mary (tin), Lelant [S.E.]	36 2 6	440	..	284 5 0	4 0 0—Mar. 1882
1024	Wheal Mary Ann (id.), Menheniot [S.E.]	8 0 0	16	15 16	56 7 0	0 10 0—Sept. 1882
80	Wheal Gwennap (copper), Redruth [S.E.]	10 0 0	110	..	518 10 0	7 10 0—Nov. 1882
994	Wheal Tregon (copper), Camborne [S.E.]	58 10 0	167 1/2	174 172 1/2	46 18 0	0 10 0—Nov. 1882
1040	Wheal Trevelyan (sil.-lead), Liskeard [S.E.]	5 17 0	18	16 1/2 17 1/2	46 18 0	0 10 0—Nov. 1882
5000	Wicklow (copper), [L.]	5 0 0	38	38	47 18 0	2 0 0—Oct. 1881

\* Dividends paid every two months. † Dividends paid every three months.

## MINES WITH DIVIDENDS IN ABEYANCE.

700	Aberdovey (silver-lead), Merioneth [S.E.]	1 10 0	30	..	0 10 0	0 10 0—Mar. 1889
6245	Alfred Consol. (copper), Phillack [S.E.]	3 15 11	..	3 1/2 3 1/2	20 3 0	0 2 0—April, 1889
286	Conduvor (copper), Camborne [S.E.]	35 0 0	105	..	88 10 0	2 0 0—June, 1887
2480	Cook's Kitchen (copper), Illogan [S.E.]	17 0 0	31	27 1/2 30	0 10 0	0 2 0—Feb. 1889
4076	Devon and Cornwall (copper)	15 16 3	9	..	16 7 6	1 10 0—Mar. 1887
672	Ding Dong (tin), Guisance [S.E.]	40 14 6	4 1/2	..	0 15 0	0 1 0—June, 1882
28800	Drake Walls (tin), Calstock [S.E.]	2 1 0	23 1/2	..	0 5 0	0 1 0—July, 1889
2048	East Wheal Lovell (tin), Wendron [S.E.]	2 18 6	..	..	0 5 0	0 5 0—July, 1889
4440	Fowey Consol. (copper), Tywardreath [S.E.]	4 0 0	5	..	41 9 0	0 2 0—June, 1880
119	Great Work (tin), Gernoe [S.E.]	100 0 0	110	..	231 10 0	7 10 0—Feb. 1887
5000	Kelly Bray (lead), Calstock [S.E.]	4 15 6	3 1/2	13 1/2 15 1/2	15 0 0	0 2 0—Feb. 1889
20	Lassy Mining Company, Isle of Man [L.]	100 0 0	1200	..	1420 0 0	80 0 0—June, 1887
160	Levant (copper), St. Just [S.E.]	2 10 0	95	..	1091 0 0	5 0 0—May, 1880
470	Newtownards Mining Co., Co. Down [S.E.]	50 0 0	35	..	58 0 0	1 0 0—Sept. 1888
6000	North Downs (copper), Redruth [S.E.]	2 8 4	3	2 1/2 3	0 10 0	0 2 0—May, 1880
2000	Orstridge Consol. (copper), Whitechapel [S.E.]	0 16 0	108	..	0 10 0	0 2 0—July, 1887
6000	Tolvadda (copper), Marazion [S.E.]	0 15 0	..	..	0 18 0	0 3 0—Mar. 1880
572	Trevelyan Consol. (tin), St. Ives [S.E.]	11 10 0	15	..	0 10 0	0 2 0—Sept. 1882
256	Wheal Damsel (copper), Gwennap [S.E.]	58 10 0	63	..	45 0 0	1 0 0—May, 1880
1024	Wheal Killy (tin), Uny Lelant [S.E.]	2 0 6	9	..	8 10 0	0 10 0—April, 1882
4295	Wheal Killy (tin), St. Agnes [S.E.]	4 10 6	4 1/2	4	0 18 6	0 2 0—July, 1880

## FOREIGN MINES.

3444	Burra Burra (copper), South Australia [S.E.]	5 0 0	100	..	280 0 0	5 0 0—Dec. 1881
6000	Central American (silver), [L.]	5 0 0	13 1/2	..	2 2 9	0 14 0—Oct. 1882
15000	Cobre Copper Co. (copper), Cuba [S.E.]	0 0 0	22	..	98 12 0	1 0 0—Jan. 1882
10000	Copiapu Mining Company (Chili) [S.E.]	16 0 0	8	..	6 18 0	0 10 0—Jan. 1882
18000	East Indian Consol., Calcutta [L.]	10 0 0	10	..	7 1/2 per cent.	—Yearly
70000	English and Australian [S.E.]	5 0 0	3 1/2	..	1 7 6	0 2 0—Feb. 1882
25000	Fortuna (lead), Spain [L.]	2 0 0	4 1/2	4 1/2	0 2 0	0 2 0—Feb. 1882
28000	Gen. Mining Assoc., Nova Scotia [S.E.]	120 0 0	23	20 23	19 5 0	1 0 0—June, 1882
68000	Kapunda Mining Co., Australia [S.E.]	1 0 0	1 1/2	..	0 10 0	0 1 0—June, 1882
15000	Linares (id.), Pono Ancho, Spain [S.E.]	0 0 0	800	..	8 16 2	0 5 0—Sept. 1882
10000	Lusitana (of Portugal) [S.E.]	2 0 0	2	..	0 19 0	0 1 0—Feb. 1882
68816	Mariquita and New Granada [S.E.]	1 0 0	1	..	0 9 6	0 1 0—July, 1882
00000	Port Phillip (gold), Clunes [S.E.]	1 0 0	1 1/2	1 1/2 1 1/2	0 6 0	0 1 0—July, 1882
11000	St. John del Rey [L.], Brazil [S.E.]	15 0 0	63	58 60	50 15 0	4 10 0—June, 1882
45174	Unit. Mexican (sil.), Mexico [S.E.]	28 0 0	5 1/2	5 1/2 5 1/2	2 1 6	0 5 0—Oct. 1882
30000	West Canada Mining Company [L.]	1 0 0	1 1/2	..	0 2 0	0 2 0—Nov. 1882

## FOREIGN MINES WITH DIVIDENDS IN ABEYANCE.

10000	Altan and Quenagen (copper), [L.]	4 10 0	3	..	4 5 0	0 15 0—Nov. 1883
10000	Gt. Barrier Lead Min. Co., N. Zee [L.]	4 10 0	3 1/2	..	15 per cent.	—May, 1889
10000	Fongibush (sil.-lead), France [S.E.]	20 0 0	4	..	1 0 0	1 0 0—June, 1883

## NON-DIVIDEND FOREIGN MINES.

Shares.	Mines.	Paid.	Last Pr.	Bus. done.	Last Call.
20000	Australian (copper), South Australia [S.E.]	7 6 8	1	..	..Sept. 1886
20000	Bearis (tin) [L.]	0 10 0	..	..	..Oct. 1886
75000	Bon Accord, South Australia (copper) [L. & S.] [S.E.]	1 0 0	..	..	..
25000	Capula (silver), Mexico [L. & S.] [S.E.]	0 10 0	..	..%	..Jan. 1887
17000	Central Italian (copper) [7000 St. paid]	0 6 0	..	..	..Jan. 1887
80000	Clarendon Consols (copper), Jamaica [S.E.]	1 2 6	..	..%	..July 1887
10000	Copiapu Smelting [L.], Chili	10 0 0	..	..8 1/2	..Fully paid
100000	Don Pedro North Del Rey (gold), Brazil [L.]	0 10 0	..	..	..Aug. 1887
75000	Don Mountain (copper), New Zealand [L.] [S.E.]	1 0 0	..	..1/2	..Fully paid
35000	Est. del Rey, Brazil [L. & S.]	1 0 0	1 1/2	1 1/2	..Fully paid
30000	East Kongberg Native Silver Mining Co. of Norway [L. & S.]	1 7 6	..	..%	..Mar. 1888
18000	Elbe Colliery Company [L.]	1 0 0	..	..%	..Fully paid
80000	Ellerlie and Bardsley, Jamaica	0 18 0	1 1/2	..	..July 1888
5000	English and Canadian Mining Company [L.]	8 0 0	..	..	..Fully paid
40000	Fortuna (copper), West Australia [L.]	2 0 0	..	..	..Fully paid
80000	Grand Northern (copper), South Australia [L. & S.] [S.E.]	1 10 0	..	..%	..June 1888
24000	Hindustan (copper), Bengal [L. & S.]	1 10 0	..	..%	..Fully paid
4000	Hope Silver-Lead and Copper Mining Co. [L.], Jamaica	25 0 0	..	..	..Fully paid
50000	Imperial Thessalian (lead, &c.), Thessaly [L. & S.]	0 10 0	..	..%	..June 1888
18000	Kapitz Colliery Company [L.]	1 0 0	17 1/2	..	..Fully paid
10000	Lagunazo (sulphur, copper), Portugal [L.]	1 0 0	..	..%	..Fully paid
100000	Montes Azules (gold), Brazil [L.] [S.E.]	2 0 0	2 1/2	2 1/2	..Fully paid
75000	New Grand Duchy of Baden (silver, lead), New Freiburg	5 0 0	19 1/2	..	..Aug. 1888
90000	New Granada (gold), South America [S.E.]	1 0 0	..	..%	..Fully paid
10000	New Grand Duchy of Baden (silver, lead), New Freiburg	1 0 0	..	..%	..Nov. 1888
80000	North Rhine Copper of South Australia [L. & S.] [S.E.]	0 17 6	1 1/2	..	..
5000	Nova Scotia (lead and gold) [L. & S.]	1 0 0	..	..	..Nov. 1888
15000	Pachoa Silver Mining Company, Mexico [L. & S.]	1 10 0	..	..	..April, 1889
17000	Quebrada (copper), Venezuela [L. & S.]	1 10 0	1 1/2	..	..July, 1889
20000	Santa Barbara (copper), Mexico [L. & S.]	0 10 0	1 1/2	..	..Mar. 1889
30000	Scottish Australian Mining Company [L.]	0 10 0	1	3/4	..
18000	South Europe Mining Company, Spain [L. & S.]	2 0 0	..	..	..May, 1889
50000	St. John's United (copper, lead), Newfoundland [L.]	1 0 0	..	..%	..Fully paid
12000	Teplitz Colliery Co. [L. & S.]	2 0 0	23 1/2	..	..
45000	Vicor Emanuel, Italy [L.] [30,000 Pref. Shares, 15s. pd., 25,000 1st pd.]	1 10 0	1 1/2	..	..
10000	Western Africa Malchichte (copper) [L.]	110 0 0	..	..	..Oct. 1889
34325	Wheat Jamaica (copper)	5 0 0	..	..	..Fully paid
80000	Worthing (copper), South Australia [L.] [S.E.]	1 0 0	18 1/2	..	..Fully paid
40000	Yudansamanta (copper), South Australia [L.]	2 0 0	2 1/2	2 1/2	..Fully paid